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COLLEGE OF MEDICINE

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COLLEGE OF MEDICINE

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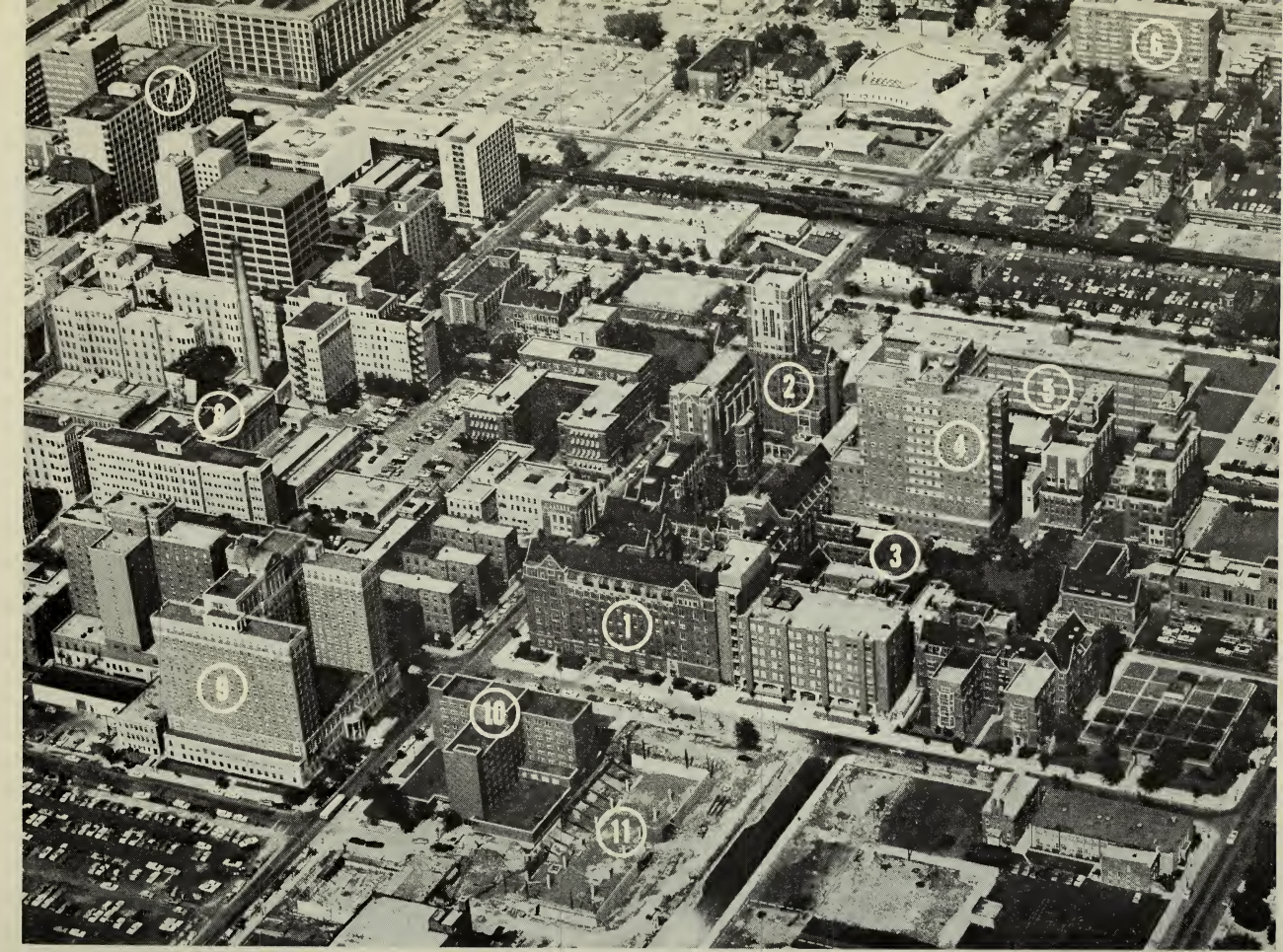

Aerial View of the University of Illinois Medical Center Campus at Chicago.

1 College of Medicine 2. College of Dentistry 3. College of Nursing 4. University of Illinois Research and Educational Hospitals Complex 5. College of Pharmacy 6. University of Illinois Staff Apartments 7. Presbyterian-St. Luke's Hospital Complex 8. Cook County Hospital Complex 9. Cook County Nurses Residence 10. University of Illinois Student Residence Halls 11. Site of new Chicago Illini Union Building

THE UNIVERSITY OF ILLINOIS

The University of Illinois was chartered in 1867 upon the foundation laid by the enactment in 1862 of the Morrill Land Grant College Act which provided 480,000 acres of land from the sale of which funds for the creation and operation of the University were derived.

The University opened on March 2, 1868, as the Illinois Industrial University. Its name was changed to "The University of Illinois" in 1885.

From its modest beginnings, the University has steadily grown to its present distinguished position among the great universities of the United States and the world. The main campus and administrative offices are located in Urbana-Champaign, 128 miles south of Chicago. Two major campuses are located in Chicago's near west side in close proximity to each other.

The Colleges of Agriculture, Commerce and Business Administration, Education, Engineering, Fine and Applied Arts, Journalism and Communications, Law, Liberal Arts and Sciences, Physical Education, and Veterinary Medicine are located at the Urbana-Champaign campus. Advanced work is offered by the Graduate College, the Institute of Labor and Industrial Relations, the Jane Addams School of Social Work, and the Graduate School of Library Science. There is also a Division of University Extension and numerous bureaus, institutes and schools, such as the Institute of Aviation.

The most recently opened campus of the University is the Chicago Circle facility, built on 107 acres of slum-cleared land. This dynamic new campus is expected to provide educational opportunities for 20,000 students by 1970. Degree curricula are provided by the Colleges of Liberal Arts and Sciences, Business Administration, Engineering, Architecture and Art, and the Division of Education.

One mile west of the Chicago Circle Campus in the midst of the 305-acre Medical Center District are the University's teaching, research, and service facilities in the health sciences.

The Colleges of Dentistry, Medicine (including the School of Associated Medical Sciences), Nursing, Pharmacy, and a Graduate College are

located at the Medical Center Campus. The Research and Educational Hospitals, the closely related Illinois Eye and Ear Infirmary, the Library of Medical Sciences, the Division of Services for Crippled Children, the Medical Research Laboratory, and the Aeromedical Laboratory are also an integral part of the campus.

The Library is one of the largest and most complete health science libraries in the United States. The Graduate College offers degree programs in the biological and clinical sciences.

CENTENNIAL YEAR

From February 28, 1967, to March 11, 1968, the University of Illinois will observe the one hundredth anniversary of its founding.

As the University reaches this significant milestone, students, teachers, administrators, and alumni alike realize that a history of achievement raises even higher expectations for the future. The Centennial Year will be a time both for celebration of past events and for thoughtful consideration of the challenge for excellence that a university faces. It will be a time for meaningful discourse among all parts of the University community on all campuses — students, faculty, administrators, alumni, friends of the University, and citizens of the State — concerning the role of the University throughout its history, and the role of the University in tomorrow's world.

The emphasis of the Centennial Year symbolizes an era of long-range planning in Illinois universities and throughout American higher education. Expansion, cautiously and carefully planned but revolutionary in scope, will be the keynote of higher education in Illinois over the next quarter of a century. The planning, and some of the building, have begun at the University of Illinois. The Centennial Year will provide a forum in which this, and the other issues facing the University of Illinois in the years ahead, can be discussed by all of the University community, in Urbana and Chicago.

THE GOALS OF THE UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE

The College of Medicine exists to promote improvement in the health of the public, and all of its varied activities are so dedicated.

The College of Medicine is committed to the education of physicians and other health personnel motivated toward and capable of a high standard of professional service and therefore must be a repository of existing knowledge, the source of new knowledge, and the driving force in the dissemination and utilization of both. It is recognized that there are various types of professional service rendered by physicians, such as general practice, specialty practice, research, teaching, preventive medicine, and administration. Each undergraduate student should become familiar with fundamental aspects of various possible professional roles and should be exposed to the intellectual stimulation inherent in each, so that he may choose that best suited to his own goals and abilities, so that he will have an adequate foundation for further training and growth toward his selected role, and so that he will better be able to integrate his professional activities with those who have assumed other roles. The College's concern for its student can not end with his graduation, but should continue throughout his professional career by means of programs of postgraduate medical education. Undergraduate experience should have inculcated the habits and desires for continued self-education.

The College should play a leading role in the extension of medical knowledge, and hence must attract superior investigators to its faculty, stimulate an interest in research among its students, and render unstinting support to all such research efforts.

The College should be ever mindful of other services to the community which may be uniquely in its province, and should willingly render such services provided that such acts are not in conflict with its primary goals of education and research.

The success of this mission depends primarily upon the faculty, which includes individuals with a variety of talents and interests, acting as a unit. This concept that a diverse but interrelated team is needed to

achieve the ultimate goals is negated when basic and clinical science, research and clinical excellence, general and specialty practice, laboratory and bedside teaching, investigator and teacher, clinician and administrator are arbitrarily separated. It should be the responsibility of the faculty to work for a fusion of the varied interests and disciplines. Techniques of teaching and learning should be regarded as a vital function of the College, and knowledge of these techniques should be accepted as essential armamentarium of the faculty. Those who elect to spend their professional careers in the environment of the College must assume the obligation of active participation in medical education. The College should represent a commmunity of scholars dedicated to extending knowledge today and to preparing the scholars of tomorrow.

The search for the superior student, his being attracted to this College of Medicine, his stimulation, and the provision of opportunities for his maximum development must be regarded as responsibilities of the College and its faculty. The College must propagate its excellence in the physicians and other scientists which it produces. The roles of student and faculty must overlap as both contribute to the intellectual environment.

Inherent in such a program is constant self-examination and a willingness to change. The College must stand ready to change its program when it becomes apparent that the goals are not being achieved.

Inquiry into the health needs of the public and into ways and means of providing for these through programs of health care must remain essential obligations of the College. The College must, in balance with other responsibilities, contribute its specific knowledge and skills for the public good.

In keeping with its aim of leadership, the College of Medicine has as fundamental obligations: the attraction of a superior faculty and student body, unstinting support of research, recognition and appreciation of the gifted teacher, and, above all, provision of an intellectual climate where students and scholars at all levels may thrive.

MEDICINE

THE COLLEGE OF MEDICINE

The College of Medicine of the University of Illinois is located on the west side of Chicago in an area known as the West Side Medical Center District. The work of the College, together with the related work in the Colleges of Dentistry, Pharmacy, Nursing, and the Graduate College, is centralized in the laboratory building facing on Polk, Wood, and Wolcott Streets. The campus, which is about two miles west of the Loop, or main business district of Chicago, can be reached conveniently by elevated train, bus, or automobile.

The University buildings contain the administrative offices of the College, the library, lecture rooms, classrooms and large laboratories for classwork, numerous small laboratories for individual research, an autopsy amphitheater, and the clinics and hospitals. The last include the University of Illinois Research and Educational Hospitals and the Neuropsychiatric Institute. The Illinois Eye and Ear Infirmary, located near the campus, is operated jointly by the University and the Illinois Department of Children and Family Services. Close to the campus are the Presbyterian-St. Luke's Hospital, Cook County Hospital, Chicago State Tuberculosis Sanitarium, West Side Veterans Administration Hospital, Illinois State Psychiatric Institute, and the Illinois State Pediatric Institute, all of which are used for student teaching.

The College of Medicine was originally an independent institution. It opened October 14, 1881, as the College of Physicians and Surgeons of Chicago. It became affiliated with the University of Illinois under a lease in 1897, and in 1900 its name was changed to the College of Medicine of the University of Illinois. Not until 1913, however, did it become an integral part of the University. During most of its early history it was located on Harrison Street in the area now forming the Louis Pasteur Park. In 1931 the College was moved to its present quarters in the west unit of the Dentistry-Medicine-Pharmacy Building. In 1941 the Presbyterian Hospital (now merged with St. Luke's Hospital) became affiliated with the University, and members of the staff of Rush Medical College were incorporated into the faculty of the College of Medicine.

Each of the colleges at the Medical Center is administered in its internal affairs by its dean and faculty. The Chancellor at the Medical Center Campus, under the direction of the President, serves as the chief administrative officer. The University of Illinois at the Medical Center has a separate Senate to deal with matters of educational policy. Separate Senates are constituted for the Urbana-Champaign and for the Chicago Circle campuses of the University. A Senate Coordinating Council con-

siders all matters acted upon by any of the three Senates, and, if there is a need, refers actions of one Senate to the other two Senates for final resolution.

TEACHING HOSPITALS

Research and Educational Hospitals

The University of Illinois owns and operates the Research and Educational Hospitals in order to have a solid core of facilities for support of the various educational programs which are based on "patient centered" activity. The Hospitals contain 611 beds and 50 bassinets, and the outpatient clinics, embracing all of the recognized specialties and many of the subspecialties, provide a setting for 200,000 patient visits per year. Four distinct buildings connected by a tunnel system form this hospital complex. The first two units (the General Hospital and the Illinois Surgical Institute for Children) were constructed in the mid and late

University of Illinois Research and Educational Hospitals.

1920's, the Neuropsychiatric Institute was completed in 1941, and the main, fourteen-story structure was occupied in 1953. The latter building houses the administrative offices, an Emergency Service, several of the outpatient clinics, the Dietary Department, Radiology Department, operating rooms, and the patient care facilities of the Departments of Surgery, Medicine, and Pediatrics. The staff offices and research facilities for these three clinical departments are also located in this building.

The major portion of the outpatient clinics are located on the first floor of the General Hospital. The Departments of Dermatology, Obstetrics, and Gynecology, Ophthalmology, and Otolaryngology with their patient care facilities are housed in this building together with the Hospital Laboratories, the Tumor Clinic, and Therapeutic Radiology and Isotope Laboratory. The offices and classrooms of the occupational therapy curriculum also occupy space here. The Section of Anesthesiology and the operating and recovery rooms are on the fourth floor.

The clinical facilities and staff offices for the Department of Orthopaedic Surgery and the Department of Physical Medicine and Rehabilitation are included in the building formerly referred to as the Illinois Surgical Institute for Children. The Neuropsychiatric Institute houses all the facilities (patient care, teaching, and research) for the Department of Neurology and Neurological Surgery in its north wing, and the south wing serves the same broad functions for the Department of Psychiatry.

The Emergency Service represents an integral part of the broad patient services offered and is equipped to care for virtually any emergency. It includes four examining rooms, two minor operating rooms, a complete laboratory, a radiographic-fluoroscopic installation, and two two-bed overnight observation units. Approximately 25,000 patient visits per year represent the current level of service.

The attending staff structure of College of Medicine faculty is built around the concept of full-time department heads with varying numbers of full-time staff members. All departments are substantially strengthened by a number of attending physicians whose times varies from 90 per cent to those who are volunteers and receive no compensation. This balance in interest and skills is deemed important in providing the broadest possible intellectual stimulus to the house staff and the clinical clerks, for both the inpatient services and the outpatient clinics are used extensively in the medical student clerkship programs.

Patient admissions are limited to residents of the state of Illinois and payment for hospital services is based upon the patient's ability to pay. Selection for admission is dependent upon the patient's need for the high

quality medical service which the University's Hospitals are prepared to render and the relationship of the medical care problem to the teaching and research needs of the College of Medicine and the Hospitals. The facilities available cover virtually every facet of medical science. Special studies and research projects frequently attract patients with unusual or refractory medical conditions; however, the spectrum of patients selected achieves a balance between the more commonplace conditions and the rare and exotic type.

Education for the medical student in the clinical years is predicated on the actual care of patients. This principle has been found to provide not only the most highly motivating method of learning but has served to sharpen the student's capacity for independent thinking and self-education. The student becomes an accepted (though junior) member of the medical care team during his clinical clerkship which represents the actual transition from classroom and laboratory centered academic experience to the role of the physician caring for his patient.

Presbyterian-St. Luke's Hospital

This is a non-profit voluntary general hospital of 844 beds and 60 bassinets located approximately three blocks north of the College of Medicine. The hospital was formed by the physical merger in 1959 of St. Luke's Hospital, founded in 1864, and Presbyterian Hospital, founded in 1883.

Through an agreement between the Hospital Trustees and the Board of Trustees of the University of Illinois, Presbyterian-St. Luke's Hospital is formally affiliated with the College of Medicine.

The Departments of Medicine, Surgery, Radiology, Biochemistry, Microbiology, Pathology, Anesthesiology, Pediatrics, Ophthalmology, and Psychiatry have full-time chairmen. Other sections such as Neurology, Endocrinology, Hematology, the Cardio-Pulmonary Laboratory, and the Isotope Laboratory also have full-time service chiefs. All members of the medical staff hold appointments to the faculty of the College of Medicine.

By tradition, every patient in the hospital is available for teaching purposes. There are facilities for free and part-pay patients. The private patient aspect of the hospital precludes any atmosphere of total academic seclusion and brings the student into direct contact with the overall picture of current medical problems.

The hospital maintains a Medical Library which is available to the students. In addition to the inpatient services, the hospital runs a large outpatient clinic. During their junior and senior years students are assigned to Presbyterian-St. Luke's Hospital for clinical clerkships.

Cook County Hospital

This general hospital, with 3,400 beds, is located directly across the street from the College of Medicine and is used extensively in clerkship teaching.

Chicago-State Tuberculosis Sanitarium

This hospital for treatment of patients with tuberculosis is located in close geographic proximity to the College of Medicine. Some members of its staff are members of the faculty of the College of Medicine.

Illinois State Psychiatric Institute

The Illinois State Psychiatric Institute, operated by the Illinois Department of Mental Health, is available to medical schools located in Chicago for undergraduate and postgraduate instruction and for research.

West Side Veterans Administration Hospital

This Veterans Administration Hospital is located two blocks west of the College of Medicine. Its training program is under the supervision of a Dean's Committee consisting of the deans of the University of Illinois College of Medicine, the Stritch School of Medicine of Loyola University, and the Chicago Medical School, and two members of the faculty of the University of Illinois College of Medicine. Each member of the professional staff of the hospital holds an appointment in one of the three medical schools in the area and participates in the instructional program of undergraduate students and residents.

Hines Veterans Administration Hospital

This hospital is located twelve miles west of the Medical Center. Its training program is under the supervision of a Dean's Committee consisting of the deans of the University of Illinois College of Medicine, the Stritch School of Medicine of Loyola University, the Chicago Medical School, and Northwestern University Medical School. The hospital facilities are used for certain instructional programs.

Illinois Eye and Ear Infirmary

The Infirmary, operated jointly by the Illinois Department of Children and Family Services and the University, is staffed by members of the College of Medicine faculty. It is used largely for resident and postgraduate training in ophthalmology and otolaryngology and provides an excellent setting for undergraduate teaching.

Division of Services for Crippled Children

An administrative unit of the University of Illinois at the Medical Center, the Division operates a statewide program of medical, surgical, and other habilitative services for children who are afflicted with a wide variety of handicapping conditions. It is Illinois' official crippled children's medical care agency. Facilities for diagnosis, hospitalization, and follow-up care are provided, utilizing various resources throughout the state, including the Research and Educational Hospitals. The Division conducts 260 general and special clinics in 40 communities staffed by pediatric, orthopaedic, speech and hearing, social service, and public health nursing consultants. Teaching and research relationships are maintained in the program of the Center for Handicapped Children. Liaison is maintained with the Children's Bureau of the Department of Health, Education, and Welfare as well as with the state of Illinois official public agencies related to health, welfare, instruction, and vocational rehabilitation.

LIBRARY

The library's collection is a comprehensive one of standard and modern works on dental, medical, nursing, pharmaceutical, social work, and

Quine Library of Medical Sciences.

allied scientific subjects, with some 2,100 current periodicals and approximately 170,000 volumes on its shelves. Its facilities are available for reference use, and most materials may be withdrawn for use outside the reading rooms.

MUSEUMS

The College has two museums: the Anatomy Museum, including gross anatomy, histology, embryology, and neurology; and the Pathology Museum, including gross specimens for purposes of instruction of undergraduate and postgraduate students of medicine.

CHICAGO ILLINI UNION

The Chicago Illini Union is a center for the out-of-classroom life of students, staff, and faculty, and for alumni and guests of the University. The Union will move to an outstanding new structure in the winter of 1967. The new building, located adjacent to the Student Residence Hall, will contain lounges, including a Music Lounge and Art Lounge; food service facilities, including a Cafeteria, Snack Bar, and Buffet Dining

Architect's Model of Chicago Illini Union Building to be Completed in January, 1967.

Room; conference rooms; a large multipurpose room; student activity offices; the University bookstore; a television room; and recreational facilities including a Billiard Room, Game Room, and bowling lanes.

A variety of recreational and cultural programs and social events are sponsored by the student officers and committee chairmen who form the Union Directorate with counsel from a student-faculty Union Board. Through its facilities, services, and programs, the Chicago Illini Union encourages interdisciplinary understanding and provides a stimulus for student participation in the creative process which is so essential to the training of those who practice in the health sciences.

HOUSING

The University offers comfortable and convenient living quarters on the campus at reasonable rates in its Student Residence Hall, Women's Residence Hall, and Staff Apartment Building. Apartments are assigned to persons employed by the University at least on a half-time basis. Assignments to the residence halls are based upon the date of application and policies established by the University Committee on Housing. Single, undergraduate women under twenty-one years of age as of September 1 of the current academic year who do not live at home or with relatives must live in University-approved housing. Other students are not required to live in University-owned housing units.

The Student Residence Hall accommodates 412 persons in 196 double, thirteen single, and seven counselor rooms. Facilities include a central shower and washroom on each floor, laundry and pressing rooms, recreation room, a lounge-television room, baggage storage area, and automatic elevators.

The new Women's Residence Hall is an air-conditioned building housing 177 persons. It contains eighty-seven double rooms and three counselor rooms. A number of the facilities are similar to those of the Student Residence Hall, including a central shower and washroom on each floor, laundry and pressing rooms, baggage storage, and an automatic elevator. In addition, the Women's Residence Hall features a study lounge on each floor, provisions for students to obtain private telephone service on an optional basis, contemporary furnishings, and a landscaped courtyard.

Meals are served three times per day in the air-conditioned Student Residence Hall Dining Room to residents of both the Women's Residence Hall and Student Residence Hall. Both residence halls will be interconnected with the new Chicago Illini Union, thereby giving residents ready

access to the many lounges, meeting rooms, programs, recreational facilities, and other services provided by the Union.

A staff of counselors is available to assist residents with personal problems and to see that a proper environment is maintained for study and living conditions. A student government organization promotes and maintains an effective program of self-government and social-recreational activities.

Contracts for accommodations in the residence halls are issued for the entire academic year. Payments may be made in full at the beginning of the academic year, quarterly, or by monthly installments in advance. The contract is for room and board and includes twenty meals per week plus housekeeping services of housemen and maids who perform general maintenance work, make beds, and clean rooms. Application forms and additional information on housing may be obtained from the Housing Office, University of Illinois at the Medical Center, 818 South Wolcott Avenue, Chicago (mailing address: P.O. Box 6998, Chicago, Illinois 60680).

RECREATIONAL FACILITIES

An intramural sports program is conducted under a trained director. Gymnasium facilities are available on the campus at 715 South Wood Street for indoor sports. Tennis courts are located nearby. Through special arrangements, the swimming pool and handball courts of the Duncan Y.M.C.A. are available to male students.

REQUIREMENTS FOR ADMISSION

Qualifications

GENERAL

A primary responsibility of the University of Illinois College of Medicine is to educate physicians. The College endeavors to fulfill this responsibility by selecting applicants who in the judgment of the Committee on Admissions demonstrate best the academic achievement, emotional stability and maturity, integrity, and motivation judged necessary for the successful study and practice of medicine. The Committee on Admissions is interested in observing evidence of a capacity for mature and independent scholarship and in discouraging rigid patterns of course work. Therefore, the Committee considers the quality of work of each applicant in all areas, the breadth of education, and the achievement in advanced courses.

The Committee seeks evidence of academic projects or work experience that demonstrate the possession by the applicant of imagination, initiative, and creativity.

SCHOLASTIC

The courses required for students entering the College of Medicine prior to July 1, 1968, are listed in Section A (below). Students entering the College of Medicine after July 1, 1968, must fulfill the requirements outlined in Section B. The grade requirements applicable both prior to and after July 1, 1968, are indicated in Section C. Full compliance with the stated requirements may be waived by the Committee on Admissions for applicants possessing unusual qualifications.

A. Requirements prior to July 1, 1968

Each applicant must have completed prior to July 1 of the year of enrollment at least ninety-four semester hours of acceptable credit from a recognized college or university, exclusive of military, hygiene, and physical education, distributed as follows:

Central Courtyard of the Medical Center Campus.

	HOURS
Chemistry (including, in addition to introductory courses, four hours of organic chemistry and three hours of quantitative analysis)	14
Physics (including the study of nuclear physics and laboratory work in mechanics, heat, sound, light, and electricity)	8
Biology (including laboratory courses in general zoology, vertebrate zoology or comparative anatomy, and general embryology)	10
English	6
Foreign Language	6
This requirement is waived if the student has completed four years of one language in high school or completes the last course of a two-year college language sequence. Non-science courses must replace the language in such a case.	
Social Science and Humanities (at least three hours from each area)	16
The following are considered social sciences: anthropology, economics, geography, history, political science, psychology, and sociology; humanities include literature (American, English, foreign), advanced composition, philosophy, and the fine arts.	
Advanced Hours (to be selected in one department from courses not ordinarily open to freshmen and sophomores)	6
Electives (at least four hours non-sciences)	28
Total	94

B. Requirements after July 1, 1968

Students seeking admission to the College of Medicine must:

1. Demonstrate in addition to academic achievement, the emotional maturity, the integrity, and the motivation judged necessary for the successful study and practice of medicine.

2. Have received a baccalaureate degree (ordinarily A.B. or B.S.) from a recognized college or university or be eligible to receive such a degree upon satisfactory completion of the curriculum of the first year in the College of Medicine. Students from colleges that do not grant a degree after the satisfactory completion of the first year of medicine may be considered for admission after satisfactory completion of three years (not less than ninety semester hours) of college work if such students are eligible for full senior status (i.e., eligibility to receive a baccalaureate degree after completion of the senior year) in that college.

The undergraduate program must include as a minimum:

Biology. A full year's course at college level in biology (usually animal) with appropriate laboratory work. This course should emphasize the cellular and molecular aspects as well as the structure and function of living organisms.

Chemistry. Two years of college chemistry divided about equally between organic and inorganic. Laboratory work and familiarity with quantitative techniques are important aspects of this experience.

Physics. One full year of college credit in physics (with laboratory experience).

The college major should be in the field that the student finds most interesting. If he chooses a division of science, he should try to get as broad an experience in the humanities as feasible. If he chooses the humanities, he should be certain to include the minimum science requirements but not necessarily limit himself to these minima. The College of Medicine would expect some studies but not require specific sequences in English and foreign languages. Mathematics through calculus is recommended. Psychology and sociology are examples of studies that are of value in the understanding of behavior and will complement studies both in the sciences and humanities. The applicant must have obtained a satisfactory score on the Medical College Admission Test.

C. Grade requirements prior to and after July 1, 1968

A grade-point average of not less than 3.5* or its equivalent as determined by the University for institutions using a different grading system, is required.

Instructions

Applications for admission to the College of Medicine should be addressed to the Office of Admissions and Records, P.O. Box 6998, Chicago, Illinois 60680. Applications must be received between July 1 and December 31 of the year prior to enrollment. In addition to the completed application form, the applicant is responsible for seeing that the following required credentials are sent directly from their original sources to the Office of Admissions:

1. Official transcripts from each college attended.
2. Results of the Medical College Admission Test.

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* In a system of four passing grades, A, B, C, and D, the grades are translated as follows: A = 5; B = 4; C = 3; D = 2. Where there are more or fewer than four passing grades, the computation is adjusted to make the same level of accomplishment apply. The individual grades are multiplied by the respective number of semester hours which each represents, and the sum of these products is divided by the total number of semester hours taken. In the case of repeated courses both grades earned are counted in computing the average.

Unless the grade-point average is below the minimum required, the applicant will be requested to procure recommendations and a report of health evaluation. Although a personal interview usually is required of each accepted student, the Committee on Admissions reserves the right to take favorable or unfavorable action on the basis of materials submitted without inviting the applicant to appear for an interview. An interview will be arranged for any applicant who requests it. Although residents of Illinois are given preference, applications for nonresidents of the state are invited. All applications when completed are reviewed individually by the Committee on Admissions and the best qualified applicants are invited to register.

Other Requirements

Medical College Admission Test. All candidates are required to take the Medical College Admission Test recommended and approved by the Association of American Medical Colleges.

Preference to Illinois Residents. In considering applications for admission to the College of Medicine, the Committee on Admissions gives preference to candidates who are residents of Illinois. Nonresidents may be accepted in numbers up to 10 per cent of any incoming class. Places in the first-year class to be filled by residents of Illinois are assigned to applicants from Cook County and to applicants from outside Cook County in the proportion which each area bears to the total population of the state according to the latest federal census, provided that if at any time the places available for either area are not filled, the remaining places may be assigned to applicants from the other area. On this basis at the present time, the places in the first-year class assigned to Illinois residents are distributed between applicants from Cook County and applicants from counties other than Cook in approximately equal numbers.

Physical Examination. Each applicant who is tentatively accepted must have a physical examination by a physician on the staff of the University Health Service on this campus. A chest X-ray is also taken at this time.

It is strongly urged that each applicant, after acceptance, visit his physician and dentist in order to attend to such items as dental repairs and fitting for glasses. After school has begun, the student finds it difficult to have these essential things carried out without loss of time from classes. It is also required that each student have a smallpox vaccination and immunizations for typhoid fever, tetanus, poliomyelitis, and diph-

theria within a five-year period prior to registration, and his physician must certify the dates on which these procedures were performed.

A tuberculin test is performed on all medical students during the first year of medical school, and subsequent tuberculin tests are recommended if indicated. All students are urged to have annual chest X-rays during their years in medical school, and a chest X-ray is required before graduation.

Deposits. Each applicant who is assigned a place in any class in the College of Medicine is required to make a deposit of $60.00 by January 15 or within two weeks of the date of notification, if notified after that date that he will be admitted. This deposit is applied on fees assessed against him at the time of registration. Failure to pay this deposit within the specified time subjects the applicant to forfeiture of his place. Twenty dollars of the deposit is returned if the applicant notifies the Office of Admissions and Records, at least thirty days before the time for registration, that he will not be able to enter. The Director of Admissions and Records is authorized to make refunds after that time when, in his judgment, the circumstances so justify.

Other Information

Renewing Applications. An applicant who has been accepted for admission but fails to enroll, and who wishes to enter in a subsequent year, must reapply for admission as a new applicant and must meet all the requirements in force at the time of the new application.

Admission with Advanced Standing. It is possible to admit a limited number of transfer students to the third-year class in the College of Medicine. In considering applications, the Committee on Admissions gives preference to the candidates who present the strongest scholastic records. Except in unusual cases, no student who is on probation or who has been dropped for any reason from a medical school is considered for admission.

Bachelor's Degree. The College of Liberal Arts and Sciences on both the Urbana and Chicago Circle campuses accepts a total of thirty-two hours of credit from the first year at the University's College of Medicine to enable the student to complete the requirements for a bachelor's degree as well as a medical degree in seven rather than the usual eight years. This program requires that (1) the student be in good standing in the College of Medicine; (2) work taken at the College of Medicine does not duplicate work taken in premedical courses; (3) the student

complete the third or last year of premedical study, consisting of at least thirty hours of credit, at Urbana or Chicago Circle; and (4) the student meets all requirements for graduation from the College of Liberal Arts and Sciences.

The following are the College of Medicine courses accepted by the College of Liberal Arts and Sciences and the majors to which they apply:

1. Biochemistry 301, 302, and 303, to be applied to a chemistry major or for elective credit at the upper-division level for a total of six semester hours.

2. Physiology 301, 302, and 303, to be applied to a physiology and zoology major or for elective credit at the upper-division level for a total of ten semester hours.

3. Histology, to be applied to a zoology major or as elective credit at the upper-division level for a total of eight semester hours.

4. Gross Anatomy, to be applied to a zoology major or for elective credit at the upper-division level for a total of eight semester hours.

REQUIREMENTS FOR GRADUATION

Degree candidates must meet general University requirements with respect to scholastic achievement and the discharge of financial obligations.

Degrees

In addition to general University requirements for graduation, each curriculum has specific requirements.

Doctor of Medicine. The degree of Doctor of Medicine is awarded to those candidates who have successfully completed four years of an approved undergraduate educational program in medicine of which at least the last year must have been at the University of Illinois and who have demonstrated to the faculty of the College of Medicine a level of academic accomplishment, emotional maturity and stability, and integrity requisite to the continued study and practice of medicine.

Honors

A student who complies with the requirements for graduation, and who attains in all work presented for the degree the average grade specified on the following page, may be recommended by the University Senate

for the honors stated: for an average grade of not less than 4.35, graduation with honors; for an average grade of not less than 4.75, graduation with high honors. The honors awarded are noted on the diploma and in the Commencement Program.

FEES AND EXPENSES

All fees are payable in full when the student registers unless the installment plan of payment is elected. The Board of Trustees of the University reserves the right to change the fees at any time through publication in the annual announcements.

A schedule of fees on an annual basis for regular full-time students in the College of Medicine is listed below. Fees are payable quarterly at the time of registration.

	FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
	Ill.	*Non-Ill.*	*Ill.*	*Non-Ill.*	*Ill.*	*Non-Ill.*	*Ill.*	*Non-Ill.*
Tuition Fee.....	$171.00	$ 756.00	$171.00	$ 756.00	$171.00	$ 756.00	$228.00	$1008.00
Service Fee.....	381.00	381.00	381.00	381.00	381.00	381.00	508.00	508.00
Hospital-Medical-Surgical Insurance Fee.....	18.00	18.00	18.00	18.00	18.00	18.00	24.00	24.00
Total.....	$570.00	$1155.00	$570.00	$1155.00	$570.00	$1155.00	$760.00	$1540.00

Late Registration Fee. Former students who register after the regular registration days in any quarter pay a late registration fee of $15.00.

Special Examination Fee. For any special examination to remove a failure, the fee is $10.00.

Study-List Change Fee. A fee of $1.00 is charged for every study-list change slip.

Transcript Fee. Each student who has paid all his University fees is entitled to receive without charge one transcript of his record. For each additional transcript the fee is $1.00.

Fees for Part-Time Students. Residents of the state of Illinois registered in partial programs of 0 to 99 clock hours pay $24.00 tuition and $45.00 service fees per quarter. Residents registered in partial programs of 100 to 199 clock hours pay $38.00 tuition and $80.00 service fees.

Nonresidents of the state of Illinois registered in partial programs of 0 to 99 clock hours pay $104.00 tuition and $45.00 service fees. Nonresidents registered in partial programs of 100 to 199 clock hours pay $178.00 tuition and $86.00 service fees.

In addition, all part-time students must pay a $6.00 Hospital-Medical-Surgical Insurance Fee each quarter.

Installment Fee. Students electing the installment plan for payment of tuition and fees are required to pay a service charge of $2.00. The service charge, not less than one-third of the current quarter's fees, and all fees and charges from previous terms must be paid on the day of registration. Failure to make payment of fees within the time limits cancels at once the privilege of attending classes. Registration is not completed until fees are paid in full, and no credit is recorded for classwork completed unless all fees and other charges have been paid in full.

Refunds. If a student withdraws within ten days after the beginning of instruction, refund is made of the full amount of tuition and fees assessed except for a non-refundable charge of $30.00. After the first ten days but within the first half of the quarter, one-half of the total amount of the tuition and fees assessed which remains after deduction of the above mentioned amount is refunded.

Expenses

From $90.00 to $125.00 a month may be regarded as adequate for the ordinary living expenses of a student in Chicago, exclusive of books, clothing, railroad fare, and miscellaneous needs. The expense of books varies between $50.00 and $100.00 a year. Board and room in the Student Residence Hall is $915.00 and up depending upon the type of accommodations. Each student at the beginning of the first year is required to provide himself with a satisfactory microscope. A stethescope, a haemocytometer, and an ophthalmoscope are required at the beginning of the second year. Members of the faculty check the condition of the microscopes upon request. Microscopes may be procured from the Illini Bookstore on a rental basis.

SCHOLARSHIPS, PRIZES, AND LOAN FUNDS

Scholarships

Mary Amanda Anderson Scholarship. Mary Amanda Anderson, an alumni of the University of Illinois, established the scholarship "to assist young women to obtain the advantages of an education." Awards are made in accordance with established procedures of the College of Medicine.

Ione Fisher Beem Scholarship. Doctor Ione Fisher Beem, who graduated from the College of Medicine in 1913, bequeathed to the University $10,000 to establish a scholarship fund, the income from which provides a scholarship for a woman medical student.

Berkelhamer Scholarship. A scholarship has been established by the family of Doctor Ralph C. Berkelhamer, a graduate of the University of Illinois College of Medicine, who died as a prisoner of war in October, 1944. It is awarded annually to a deserving and needy student.

Class of 1938 Scholarship. The Class of 1938, at the time of its twenty-fifth reunion, set up a fund to provide an annual scholarship for a medical student to be awarded in accordance with the College of Medicine regulations.

Warren H. Cole Scholarship. The Warren H. Cole Society annually gives a sum of money to the University to be awarded to a freshman student who has performed in an outstanding manner during the first quarter of the freshman year.

David Mortimer Olkon Scholarship. This scholarship is awarded annually to two outstanding senior medical students in the Department of Neurology and Neurological Surgery and Department of Psychiatry selected on the basis of excellence and scholastic standing by the Dean of the College of Medicine and heads of each of said departments.

Pfizer Laboratories Medical Scholarship Program. Pfizer Laboratories annually provides funds that are awarded to a medical student who has demonstrated outstanding scholarship.

Phi Delta Epsilon Fraternity Foundation Scholarship. This Foundation has established a scholarship to be awarded annually to an undergraduate member of the Phi Delta Epsilon Fraternity who has shown evidence of scholarship, leadership, and service. The award is made in accordance with established procedures of the College of Medicine.

Rea Scholarships. The annual income from a fund established in 1899 by the will of Doctor Robert Laughlin Rea is used for four scholarships, awarded by a committee of the faculty, to help pay the tuition fees of needy students in the College of Medicine. First-year students are not eligible.

Otto Saphir Memorial Scholarship. This scholarship was established in 1963 as a memorial to Doctor Otto Saphir, Clinical Professor of Pathology from 1930 to 1963. It is awarded annually to the third year medical student who has demonstrated outstanding competence and interest in pathology.

Seitzinger Scholarship. This scholarship, established by an alumnus, is available every fifth year to a freshman medical student.

Doctor Jerome D. Solomon Scholarship. This scholarship, to be awarded to a deserving and needy medical student, was established by a

gift from the Doctor Jerome D. Solomon Foundation. Doctor Solomon, who graduated from the University of Illinois College of Medicine in 1941, died in New Guinea during World War II and was posthumously awarded the Legion of Merit.

Streicher Memorial Scholarship. An endowment fund has been established by colleagues and friends of the late Doctor Michael Henry Streicher, who was a member of the Department of Medicine for many years. The income from this fund is used as a scholarship for a capable and needy student enrolled in the College of Medicine. Other things being equal, preference is given to sons or daughters of graduates of the University of Illinois College of Medicine. After the award is made, if circumstances warrant, the award is reassigned annually as long as the student is enrolled as an undergraduate in the College of Medicine.

Williamson Memorial Scholarship. Members of the faculty and friends of the late Professor Charles Spencer Williamson, for many years Head of the Department of Medicine, have established an endowment fund, the income from which is used as a scholarship for a capable and needy student, either graduate or undergraduate. The award is made by the Dean of the College of Medicine and the Head of the Department of Medicine.

Woman's Auxiliary Scholarships. The Woman's Auxiliary of the University of Illinois at the Medical Center at the present time offers two scholarships annually to students in the College of Medicine. The recipients are selected on the basis of scholarship, need, and adaptability.

Yarros Scholarship. The fund was established by Victor S. Yarros to continue the scholarship program begun in 1948 in memory of his wife, Doctor Rachelle S. Yarros, formerly Professor of Social Hygiene at the University of Illinois College of Medicine. Scholarship awards in varying amounts are available to deserving and needy students enrolled in the College of Medicine.

General Assembly Scholarships. Each member of the General Assembly may nominate, annually, one student from his district for a scholarship to the University. Provision is made for substitute appointments in case the original nominee fails to qualify or discontinues his course. This scholarship exempts the holder from the payment of the tuition fees only in any course in the University for a period of four years.

Military Scholarships. Any person who is not receiving financial assistance for educational purposes from the federal government and who

served in the Army, Navy, Air Force, or Marine Corps of the United States during World War I, or at any time after September 16, 1940, and who has been honorably discharged, is entitled to a scholarship to the University of Illinois if he possesses the necessary entrance requirements and if he was a resident of the state of Illinois or a student in the University of Illinois at the time of his enlistment. This scholarship exempts the holder from the tuition fees in any course in the University for four years. Applications for these scholarships may be procured from the Office of Admissions and Records.

Other Scholarships. In addition to the scholarships listed above, funds are received annually from a variety of sources to provide financial assistance to medical students.

Prizes

Beaumont Memorial Prize. The late Doctor Frank Smithies of Chicago endowed an annual prize in memory of William Beaumont, the famous surgeon of the nineteenth century. The prize is awarded by a committee to the student or faculty member of the College of Medicine who submits the best original work on diseases of the alimentary tract.

Borden Undergraduate Research Award. The Borden Company Foundation, Inc., has established a $500.00 yearly prize for the student in the graduating class who during any year while enrolled in the College of Medicine as a candidate for the Doctor of Medicine degree is judged to have performed the most meritorious piece of research. Originality and thoroughness of the research are of primary consideration.

Sigma Xi Prize. The Society of Sigma Xi annually awards two prizes for excellence in graduate research. These prizes are available to any students in the Colleges of Medicine or Dentistry who are also registered in the Graduate College. On the basis of the research and its presentation, awards of $300.00 and $200.00 are made from funds provided by Mr. and Mrs. Charles E. Fawkes.

Other Prizes. Special prizes and awards are available annually from gifts and grants-in-aid. Such awards are publicized and administered by faculty committees.

Loan Funds

Several loan funds have been established for the benefit of worthy students who are in need of financial aid in order to finish their courses. In general, long-term loans are not made to freshmen until they have satisfactorily completed one quarter of academic work. Further infor-

mation concerning all loans and the regulations governing the funds may be obtained from the Office of Student Affairs.

American Medical Association Education and Research Foundation Loan Fund. The American Medical Association, in cooperation with the Continental Illinois National Bank and Trust Company of Chicago, has established a sizable loan fund from which medical students, interns, and residents may borrow from $400 to $1,500 annually. Not more than $10,000 may be borrowed over a seven-year period.

Repayment may be scheduled over a ten-year period after all training is completed. The interest varies slightly from time to time, but generally averages about 5½ per cent from the date the loan is made.

Chicago Memorial Hospital Women's Auxiliary Loan Fund. This fund, established in 1955 by a gift from the Women's Auxiliary of the Chicago Memorial Hospital, is for loans to needy and qualified students in the College of Medicine.

Emergency Aid. Emergency loans are made to students in the College of Medicine from a fund established by students and from general University money.

Doctor Benjamin Goldberg Fund for Needy Students. Doctor Benjamin Goldberg, an alumnus of the University of Illinois College of Medicine, established a fund for needy students. The fund is administered by the Dean of Student Affairs, and the aid is in the form of a gift to the needy student.

Frank Goodman Loan Fund. A limited number of loans are made from a sum of money given to the University in honor of Doctor Frank Goodman, an alumnus of the University of Illinois College of Medicine. Loans from this fund are administered under the same rules and regulations applied to general University loan funds.

Illinois Agricultural Association and State Medical Society Loan Fund. The Illinois State Medical Society, through its committee on rural medical service, has a loan fund available for medical students who meet certain requirements. Further information may be obtained in the Office of Admissions and Records.

Health Professions Student Loan Program. This special federal loan program is available to medical students. The primary qualification for loan is need and parents are required to submit a financial statement. Terms are very liberal. Qualified students may borrow a maximum of $2,000 per year. Detailed information about this fund and other federal loan programs may be obtained in the Office of Student Affairs.

Long-Term Loan Fund. Long-term loans are limited to $1,000 for any one year and a maximum of $2,500 while a student is attending the University of Illinois College of Medicine. Long-term loans bear interest at the rate of 3 per cent from the date of graduation.

National Defense Education Act Loan. A limited amount of federal money is available for loans to medical students who are in good standing and who are exceptionally needy. Details of this loan fund and application forms may be obtained in the Office of Student Affairs.

Poncher Foundation Fund. A revolving loan fund created by friends of Doctor Henry George Poncher, former Professor and Head of the Department of Pediatrics at the University of Illinois College of Medicine, provides loans up to $1,000 with liberal repayment privileges after the period of medical training is completed. Loans are limited to qualified junior or senior premedical students and medical students.

Margaret Ann Schultz Loan Fund. A sum of money given to the University from the estate of Margaret Ann Schultz is set aside specifically for loans to medical students. Loans from this fund are administered under the same rules and regulations applied to general University loan funds.

LECTURESHIPS

Bacon Lectureship. In 1927, when Doctor Charles S. Bacon, on reaching the retiring age, was made Professor of Obstetrics, Emeritus, members of the faculty and friends of Doctor Bacon contributed the sum of $5,000 to found the Charles S. Bacon Lectureship in Obstetrics. The income from this fund is used to defray expenses of lectures given each year at the College of Medicine.

Davis Lectureship. The inauguration of the D. J. Davis Lectureship on Medical History was held on October 15, 1943. These lectures are maintained by interest on the funds subscribed by friends and associates of Doctor Davis who served the University for thirty years as Professor of Pathology and Dean of the College of Medicine.

Gehrmann Lectureship. In 1924, in accordance with the will of Mrs. Albertina Gehrmann, widow of Doctor Adolph Gehrmann, for many years Professor of Bacteriology and Hygiene in the College of Medicine, the sum of $10,000 was given for the support of an annual lectureship in memory of Doctor Gehrmann.

Hedblom Lectureship. In 1938 the Phi Beta Pi medical fraternity contributed a fund to establish an annual lectureship in honor of Doctor

Carl Hedblom, who until his death was Professor of Surgery and Head of the Department. Doctor Hedblom had an international reputation in the field of chest surgery.

Irish Lectureship. In 1946 Eta Chapter of Alpha Kappa Kappa fraternity endowed an annual lectureship as a memorial to the late Head of the Department of Pediatrics, Doctor Henry Irish.

ORGANIZATIONS

Alumni Association of the College of Medicine

PRESIDENT: William Sladek '33, 190 Northwood Road, Riverside, Illinois 60546.

PRESIDENT ELECT: Gilbert White, Jr. '51, 8754 Parkway Drive, Highland, Indiana 46322.

FIRST VICE-PRESIDENT: Philip G. Thomsen '34, 13826 Lincoln, Dolton, Illinois 60419.

SECOND VICE-PRESIDENT: Earl C. Bucher '34, 1106 North Church, Gibson City, Illinois 60936.

SECRETARY-TREASURER: Louis R. Limarzi '30, 910 North East, Oak Park, Illinois 60302.

Alpha Omega Alpha

The international honorary medical society Alpha Omega Alpha was founded at the College of Medicine in 1902. Members are elected from among third and fourth year students on the basis of scholarship, personal honesty, and potential leadership.

FACULTY ADVISER: G. E. Miller.

Sigma Xi

In 1928 the Society of Sigma Xi granted a charter for the organization of a chapter of this society at the College of Medicine. Its object is the promotion of research.

INSTRUCTIONAL PROGRAM

In its determination to provide the students of this College of Medicine with the best possible educational opportunity, the faculty has committed itself to a carefully designed and all-inclusive study of its educational pro-

grams. An Office of Research in Medical Education has been created to lend continuing direction and implementation to the study.

The program is designed to place increasingly upon the student the responsibility for learning and to encourage to the fullest the development of intellectual curiosity. In all years of study from the first through the fourth, the program is designed to teach the scientific method, to promote learning by problem-solving, and to develop the skills and attitudes of a mature physician.

During the first two years the curriculum provides for the study of the sciences that are basic to medicine (anatomy, biochemistry, microbiology, pathology, pharmacology, and physiology). Throughout this period emphasis is placed on correlation and integration of subject matter, and an opportunity is provided to the student to learn much concerning physical and emotional growth and development of human beings. Increasingly in the sophomore year, the student acquires familiarity with the methods and techniques of evaluating patients and the disorders which affect them.

The third and fourth years are devoted principally to the study of clinical subjects. The program of teaching and learning is conducted principally in the clinical clerkships in the wards and outpatient departments of the University hospitals and the affiliated teaching hospitals. The clerkships provide an opportunity for the student to examine, observe, and evaluate patients under close supervision and to correlate knowledge and understanding of the basic sciences with the clinical practice of medicine. Supplemental information is provided by means of lectures, conferences, assigned reading, and library research.

The third-year program is built around clerkships in medicine, pediatrics, and surgery, each of ten to twelve weeks' duration. In the fourth year the program is divided into four ten- to twelve-week quarters as follows:

1. One quarter of obstetrics and gynecology.
2. One quarter of medicine and surgery.
3. One quarter of outpatient work in which medicine, surgery, psychiatry, and dermatology are emphasized.
4. One quarter of elective work (alternate program quarter).

The subject matter presented within the programs is defined in course descriptions of individual departments in the following sections of the catalog. Attention is directed to department course numbers 399 and 398 which explain opportunities for elective work in the alternative program quarter.

Summary of Instruction Program for 1966-67 only*

A. REQUIRED PROGRAMS

Subjects	First Quarter		Second Quarter		Third Quarter		Total Clock Hours
	Didactic	Laboratory	Didactic	Laboratory	Didactic	Laboratory	
FIRST YEAR							
Anatomy (Gross)	12	48	12	48	12	48	180
Histology	20	40	20	40	0	0	120
Neuroanatomy	0	0	0	0	20	40	60
Biological Chemistry	30	0	40	0	0	50	120
Basic Science Clinic	4	0	4	0	4	0	12
Physiology	30	8	35	20	35	20	148
Psychiatry	10	0	10	0	10	0	30
Total	106	96	121	108	81	158	670
SECOND YEAR							
Examination of the Patient	10	30	10	30	10	30	120
Medicine-Pediatrics	0	0	0	0	20	0	20
Microbiology	30	60	30	20	0	0	140
Pathology	40	70	30	75	30	75	320
Pharmacology	0	0	40	30	30	20	120
Preventive Medicine	11	0	0	0	10	0	21
Psychiatry	10	0	0	0	10	0	20
Radiology	0	0	0	0	10	0	10
Surgery	0	0	0	0	20	0	20
Total	101	160	110	155	140	125	791

* The clinical clerkship curriculum will be modified beginning with the summer quarter, 1967. See page 39.

THIRD YEAR

Clerkship Programs

Medicine (includes internal medicine and medical subspecialties)	1 quarter
Surgery (includes surgical pathology and surgical subspecialties)	1 quarter
Pediatrics	1 quarter
Psychiatry	½ day per week for two quarters during medicine and pediatrics clerkships

Summary of Lecture Program (one hour per day five days a week for three quarters)

Medicine and Pediatrics	66 hours
Neurology	22 hours
Obstetrics and Gynecology	8 hours
Orthopaedics	22 hours
Psychiatry	11 hours
Surgery	22 hours

Lecture Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
Fall	Medicine-Pediatrics*	Medicine-Pediatrics	Surgery	Obstetrics-Gynecology	Psychiatry
Winter	Medicine-Pediatrics	Medicine-Pediatrics	Surgery		Neurology
Spring	Orthopaedics	Medicine-Pediatrics	Orthopaedics		Neurology

All junior students attend all lectures throughout the year.

* Pediatrics and medicine lectures are integrated in order to reduce duplication and to increase the number of subjects presented. They are also integrated with lecture series for sophomores.

FOURTH YEAR

Clerkship Programs

Outpatient	1 quarter
Medicine	3 half days per week
Surgery	3 half days per week
Psychiatry	2 half days per week
Dermatology	1 half day per week
Topographic Anatomy	1 half day per week
Inpatient	1 quarter
Medicine	6 weeks
Surgery	6 weeks
Preventive Medicine and Community Health	1 half day per week
Obstetrics and Gynecology	1 quarter

Alternate Programs (399 and 398 courses) ..... 1 quarter
(Available through the Departments of Medicine, Obstetrics and Gynecology, Orthopaedics, Pediatrics, Preventive Medicine and Community Health, Psychiatry, Surgery, Dermatology, Neurology and Neurological Surgery, Otolaryngology, Pathology, Ophthalmology, Physical Medicine and Rehabilitation, Radiology)

Summary of Lecture Program (one hour per day five days a week for two quarters and two hours Saturday morning for one quarter)

Anesthesia	11 hours
Dermatology	22 hours
Neurology and Neurosurgery	22 hours
Ophthalmology	22 hours
Orthopaedics	11 hours
Otolaryngology	22 hours
Surgery	11 hours

Lecture Schedule

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Summer	Surgery	Dermatology	Anesthesia	Ophthalmology	Otolaryngology	
Fall		Dermatology	Orthopaedics	Ophthalmology	Otolaryngology	Neurology and Neurosurgery *
Winter	Surgery	Dermatology	Anesthesia	Ophthalmology	Otolaryngology	Neurology and Neurosurgery *
Spring		Dermatology	Orthopaedics	Ophthalmology	Otolaryngology	

Senior students attend lectures for two quarters only, i.e., during the alternate and outpatient quarters. Therefore, each lecture series is repeated twice during the year. All lectures are one hour unless otherwise indicated.

* Two-hour lecture.

B. ELECTIVE PROGRAMS

Several types of elective programs exist which students in good standing in the College of Medicine may choose to enter in addition to the regularly scheduled curriculum.

Members of the faculty from the Departments of Biological Chemistry, Dermatology, Medicine, Otolaryngology, Pathology, Pharmacology, Physiology, Psychiatry, and Surgery offer elective course work not for credit. The specific courses may be found listed by departments in the Course of Instruction section which follows. Additional courses become available from time to time.

Students may engage in research during free quarters (summer quarters between freshman and sophomore years and sophomore and junior years), during the alternate quarter of the senior year, or during the school year. Interested students should seek the sponsorship of individual departments. Research may be undertaken for credit in the Graduate College or may be undertaken without registration in the Graduate College on a not-for-credit basis.

C. JAMES SCHOLAR PROGRAM FOR INDEPENDENT STUDY

The program for independent study has been created to provide independent scholars with an opportunity (1) to achieve the basic educational objectives of the medical school at their own pace, utilizing those physical and intellectual resources of the institution that can assist them to achieve this goal in the most efficient manner; (2) to probe more deeply and to acquire greater competence in some facet of the health sciences than could be accomplished in the more structured standard curriculum. A student's acceptance of such opportunity must be accompanied by his clear

acknowledgment of a responsibility to achieve more than might be expected of his peers.

Each scholar will be held responsible for achievement of departmental and institutional objectives, but will not be expected to adhere to the standard pattern of instruction although he may elect to participate in some or all of the regular class exercises.

Each student will also be expected to identify an area of study to which he will devote particular attention. Although it is hoped that this interest will grow and deepen through his medical school years a shift in the focus of special study may in some instances be desirable.

In selecting independent scholars, the Subcommittee will invite applications from among the top students of the incoming class as determined by the Subcommittee. Initially, a maximum of eight students will be selected from each freshman class on the basis of all available information including academic record, MCAT, recommendations, and interview. Special testing procedures to identify more precisely the qualities that should characterize an independent scholar may also be used at the discretion of the Subcommittee.

Opportunity may be provided for a limited number of upper class students to enter the program. Selection of these applicants will be based upon criteria similar to those noted above.

Promotion and graduation will be contingent upon successful performance on all certifying procedures required in the College of Medicine and the recommendation of the Committee on Promotions. In order to be designated an independent scholar upon graduation a student must either submit an acceptable thesis or pass a comprehensive examination covering the area of his special study.

The program, to begin with the entering class 1967, is under the direction of Doctor Truman Anderson. Further information may be obtained by writing to him at P.O. Box 6998, Chicago, Illinois 60680.

D. NEW CLINICAL CURRICULUM TO BEGIN SUMMER, 1967

During the academic year 1965-66 the Faculty of the College of Medicine adopted a revised curriculum for the clinical years. The changes embodied in the revision expand the elective (alternative) quarter program to two quarters and provide for the sequential organization of the clinical clerkships. The changes will permit greater flexibility in arranging programs to meet individual student needs. By utilizing vacation time it is possible for students to have nine consecutive months in which to plan a curriculum of his own choosing. The following is a simplified outline of new clinical curriculum:

CLERKSHIP CURRICULUM EFFECTIVE JUNE, 1967

	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring
GROUP A 50 students	Pediatrics or Medicine	Medicine or Pediatrics	Psychiatry Medicine Neurology	Surgery	Obstetrics and Gynecology Orthopaedics	Vacation	Alternate Program	Alternate Program
GROUP B 50 students	Vacation	Pediatrics or Medicine	Medicine or Pediatrics	Psychiatry Medicine Neurology	Surgery	Obstetrics and Gynecology Orthopaedics	Alternate Program	Alternate Program
GROUP C 50 students	Vacation	Alternate Program	Pediatrics or Medicine	Medicine or Pediatrics	Psychiatry Medicine Neurology	Surgery	Obstetrics and Gynecology Orthopaedics	Alternate Program
GROUP D 50 students	Alternate Program	Alternate Program	Vacation	Pediatrics or Medicine	Medicine or Pediatrics	Psychiatry Medicine Neurology	Surgery	Obstetrics and Gynecology Orthopaedics

In addition to the above outline, Dermatology, Preventive Medicine, and Community Health clerkships and a lecture series will be regularly scheduled.

COURSES OF INSTRUCTION

The following list of courses is an alphabetic order of departments. The courses offered in each department are listed numerically. In the description of each course the letters F, W, Sp, and S indicate the fall, winter, spring, and summer quarters, and the periods of time required each week apply to the whole quarter unless the number of weeks is stated. Credit is calculated in clock hours.

ANATOMY

Professors: S. Reynolds (Head of Department), Cooper (Emeritus), DuBrul, Kampmeier (Emeritus), Krehbiel, A. LaVelle, MacRae, Plagge, Schmidt, Simer (Emeritus), Von Bonin (Emeritus), Zimmerman (Emeritus).

Associate Professors: Casella, Cipolla, Joranson (Emeritus), Khedroo, Larramendi, Maibenco, Monsen, Van Alten, Vicari.

Assistant Professors: Liem, A. Reynolds.

Lecturer: Hovde.

Research Associate: F. LaVelle.

Instructors: Conway, Norman.

The course in anatomy is offered in the fall, winter, and spring quarters of the freshman year. It includes gross anatomy (301) which continues throughout the year, microscopic anatomy (302), including embryology, during the first two quarters, and neuroanatomy (303) in the final quarter. In each of these courses the essential morphological features and characteristics of the human body are emphasized, developmental concepts are stressed, and attention is given to situations in which morphological and functional interdependence is prominent. An attempt is made to emphasize the developmental and ever-changing aspects of living structures at different phases of life. Emphasis is necessarily laid upon the adult human organism.

The program in anatomy consists of three parts. That in gross anatomy is scheduled to meet from 9:00 a.m. to 12:00 noon on two days a week throughout the academic year. A number of lectures at first serve to orient and direct the student. After about five weeks, lectures are infrequent and are of an integrating nature. The laboratories are open for dissection until 10:00 p.m. on weekday nights, Monday through Friday, and all day Saturday unless they are scheduled for use by other classes. On Saturday mornings of the winter quarter, an anatomy conference is held by the Department of Surgery.

In microscopic anatomy, lectures are held twice weekly and laboratory work follows the lectures. An attempt is made to emphasize genetic, cytochemical, developmental, and the changing aspects of living structures at different times of life, and to relate the work in human anatomy to biological principles in order to provide a basis for subsequent medical study.

Neuroanatomy, in the spring quarter, occupies two half days a week. It considers the gross and microscopic relationships of the nervous system and is highly functional in approach. As in gross anatomy, much responsibility, under guidance, is placed upon the student to learn what is required of him.

Elective courses are available each quarter in conjunction with the Graduate College.

Required Courses — First Year

301. Human Gross Anatomy. Dissection of the human body, consideration of development of organ systems, X-ray anatomy. 180 hours; continuous through F, W, and Sp.

302. Human Histology. Microscopic study of the tissues and organs, histogenesis, placentation, early embryonic development. 120 hours; continuous through F and W.

303. Human Neuroanatomy. Gross and microscopic structure, development of the central nervous system. 60 hours; Sp.

Required Courses — Other Colleges and Schools

Anatomy 101. Introduction to Human Anatomy. College of Nursing.

Anatomy 535. Gross Anatomy. College of Dentistry.

BIOLOGICAL CHEMISTRY

Professors: Binkley (Acting Head of Department), Horwitt, Myers, Rafelson.

Associate Professors: Hayashi, Jeffay, Johnson, Kohn, Mattenheimer, Sky-Peck, Titchener, Weissmann.

Assistant Professors: Ammeraal, Bezkorovainy, Century, Cline, Cole, Coleman, Doughty, Dubin, Elwyn, Hanlon, Howes, Inouye, Kathan, Juettner, Molnar, Samachson, L. Simon, Witting.

Research Assistant Professor: Harrison.

Instructors: G. Simon, Sutter, Wu.

Biological chemistry is a science in which the fundamental knowledge of the various branches of chemistry (analytical, inorganic, organic, and physical), physics, and biology are combined to seek a better understanding of the chemical constitution and processes of the living organism. The subject has two general aspects which extend the sciences of anatomy and physiology into the realm of the invisible: chemical structure is anatomy at the molecular level; the study of the chemical processes of the living organism is physiology at the molecular level.

The three-quarter course (fall, winter, and spring quarters of the first year) in biological chemistry required of all students in the College of Medicine

emphasizes the chemical and biological principles involved in living processes with as much integration with the other preclinical sciences (antaomy, microbiology, pathology, pharmacology, and physiology) and clinical sciences as seems feasible at this stage of medical education. A foundation is laid upon which the student can and must build as other subjects are studied, if the full benefits of chemistry to clinical medicine are to be obtained. Stated in more detail, the course has four principal objectives: (1) to teach students to think in terms of chemistry about physiological processes and changes; (2) to develop an appreciation of quantitative thinking and action; (3) to develop technical skill; (4) to familiarize students with some of the more important clinical chemical concepts.

Opportunities are offered, to the extent that facilities are available, for advanced study and research for those students who wish further knowledge and experience in this field. Such students should consult the department for further information.

Required Courses — First Year

301-302-303. Biological Chemistry. Chemistry of the constituents of tissues and body fluids, and current methods for their qualitative and quantitative determination; digestion, absorption, and intermediary metabolism of lipids, proteins, and carbohydrates in health and disease, and the role of hormones, vitamins, and enzymes in the regulation of these processes; the application of this knowledge to the problems of disease. Lectures, conferences, and laboratory. Four hours each week, F and W; five hours each week, Sp.

Elective Courses — Not for Credit

360. Special Problems in Biochemistry. This course is designed to meet the needs of medical students (and others) who wish to take special research work in biochemistry during the summer, during alternate quarters, or during the academic year. This course will permit students to pursue, in the laboratory of faculty members, various areas of research in which they may be interested. S, F, W, Sp.

361. Medical Aspects of Nutrition. Recent advances in nutrition which are applicable to the better understanding of mammalian metabolism and clinical problems will be discussed. 10 hours; Sp.

362. Clinical Biochemistry. Lectures in clinical biochemistry. 1 hour per week; W.

Required Courses — Other Colleges and Schools

Biochemistry 101. Introduction to Biological Chemistry. College of Nursing.

Biological Chemistry 505. Biological Chemistry. College of Dentistry.

Chemistry 123. Biological Chemistry. College of Pharmacy.

DERMATOLOGY

Professors: Rostenberg (Head of Department), Cornbleet, Shellow, Szymanski, Weber (Emeritus).

Associate Professors: Barsky, Becker, Falk, Finnerud (Emeritus), Griffith, Haeberlin, Neuhauser, Perlstein (Emerita), Potter, Robin, Slepyan, Tavs.

Assistant Professors: Bailey, Bielinski, Distelheim, Kirschenbaum, Mandrea, Pearl, Rubin, Smith, Solomon, Yaffe.

Lecturer: Kass.

Research Associate: Stegmaier.

Instructors: Aleshire, Kroll, Medansky, Spinka, Weinstein.

Assistants: Altman, Desal, Diamond, Fretzin, Schmerold.

Diseases of the skin comprise a high proportion of the cases seen by many physicians. Some cutaneous disorders, such as certain tumors or contact dermatitis, manifest themselves only in the skin. Other skin lesions are expressions of underlying systemic disease. It is important that all physicians, general practitioners and specialists alike, become familiar with these clues to diagnosis.

A course of lectures covering the most common diseases of the skin is given during the senior year. Emphasis is placed on the diseases most likely to be seen in practice and on those having systemic significance. Consideration is also given to the diagnosis and treatment of industrial dermatoses and to the preventive measures that are available. The role of allergy in dermatology and the psychosomatic aspects of skin diseases are considered. Syphilis from the point of view of morphologic diagnosis, serologic diagnosis, and therapy is considered. Colored lantern slides both of clinical cases and histopathologic sections are used extensively as visual aids.

Required Courses — Fourth Year

375. Lectures on Dermatology and Syphilis. A formal coverage of the entire field of dermatology by means of lectures, kodachromes, and demonstrations. Presented to half the class during the first two quarters and repeated for the second half in next two quarters. One hour a week; S, F, W, and Sp.

376. Clinical Dermatology. The presentation of cases with a discussion of diagnosis and therapy. Each student is assigned a patient and is required to take a history and do a physical. He then is to describe the lesions, to make a differential diagnosis, and to describe therapy. A staffman, or a resident, supervises the work. After this, the entire group meets and each time different students present their cases to the whole group. Demonstrations are given of various procedures such as punch biopsies, freezing technics, cauterization, and electrodesiccation for the diagnosis and treatment of skin lesions. One-half day a week during out-patient quarter; S, F, W, and Sp.

Alternative Quarter Program

399. **Dermatology.** This course provides additional clinical training in the diagnosis and therapy of skin diseases. Students attend the skin clinics at Research and Educational Hospitals, Presbyterian-St. Luke's Hospital, and the Municipal Venereal Disease Clinic. The student participates in ward rounds and is given an opportunity to acquire the rudiments of dermatologic histopathology. Limited to eight students; course meets every afternoon for six or twelve weeks. Selected students also are given an opportunity to participate in the departmental research. For such students, the course requires the entire day. Prerequisite: Dermatology 376. F, W, and Sp.

Elective Courses — Not for Credit

360. **The Clinical Physiology of the Skin.** The skin is the meeting place of the body and the outside world. Indeed the skin may be considered the regulator of environmental homeostasis. The course endeavors to show how the skin subserves this function by regulating temperature, by developing extra keratin when needed, by modification of its pigments, and by immunological responses. Patients are used to illustrate these aspects of skin physiology insofar as this is possible. All classes.

361. **Examination of the Dermatologic Patient.** Practical instruction in examination of the skin, with emphasis on systemic disease. Students are trained to describe the patient's eruption. Particular attention is given to the taking of history in cases of drug eruption, atopic and contact dermatitis. Special instruction is given in darkfield microscopy and direct examination for the presence of fungi. Groups of six students meet weekly for a two-hour session. Sophomores. W, Sp.

362. **Histopathology of the Skin.** Biopsy technique is demonstrated and opportunity afforded for correlation of gross pathologic change (i.e. the patient's lesion) with the histopathologic changes. Most of the time is spent in study and discussion of sections of common dermatoses and cutaneous neoplasms, on the basis of integration with principles of general pathology. Sophomores, juniors, seniors. F, W, Sp, and S.

MEDICAL SOCIAL WORK

Associate Professors: Preucil (Head of Department), Binns, Hepler, Large.

Assistant Professors: Fassler, Gilson, Goss, Helms, Meuser, Swearingen, Waite (Emerita).

Instructors: Albright, Chapman, Clifton, Dublin, Fellheimer, Field, Jackson, Kooy, Mellinger, Natusch, Price, Regier, Robertson, Robinson, Schreiber, Sowers, Tasso, Thomas, Walling.

The major objective of the Department of Medical Social Work is to help students to observe and to understand the variety of meanings which illness may have for patients and their families; to recognize the pertinence of family relationships and of other social factors in the appraisal of the medical problem and in the determination and success of treatment; to evaluate the significance of such factors in specific situations; and to learn what types of community facilities for rehabilitation are available. In order to help the student to develop skill in carrying out these functions, the department also teaches the methodology for: interviewing; exploration of sources of social information other than the patient; evaluation of observations of patients and others; and use of community resources to the best advantage of the patient. For medical students in the clinical clerkships, this material is integrated into the courses in the various departments of medicine by lectures, seminars, rounds, group discussions, and conferences with one or two or with a small group of students. All teaching is related to patients who are under care in the hospitals or clinics, many of whom are being served by the department.

Students of nursing and occupational therapy are given similar material in didactic lectures and in small group discussions regarding individual patients.

Each year, approximately twenty graduate students of social work from the University of Illinois and the University of Chicago receive their clinical instruction in the department.

MEDICINE

Professors: Dowling (Head of Department), Abramson, Arkin (Emeritus), Barton, L. M. Bernstein, Birch (Emerita), Bliss, Campbell, Capps, Cotsonas, Dow, Feldman (Emeritus), Foley (Emeritus), Freilich (Emeritus), Graettinger, Gray, P. Heller, Hibbs (Emeritus), Hick, Hussey, Jackson, Kark, F. B. Kelly (Emeritus), Limarzi, Littman, Lueth, G. E. Miller, M. M. Montgomery, Pfuetze, Rappaport (Emeritus), Roberg, Samter, T. B. Schwartz, Spellberg, M. M. Stanley, S. Strauss (Emeritus), Stuppy (Emeritus), Taylor, Thomas (Emeritus), Trobaugh, VanderKloot (Emeritus), Wood (Emeritus).

Associate Professors: Afremow, Baldwin, Berg, A. Bernstein, Berryman, Best, Brebis, Breuhaus, Bronsky, Byfield, Carleton, Carton, Colbert, T. B. Coogan, Costea, Creticos, Fischer, Franklin, Franzblau, Fruin, Goldberg (Emeritus), Gunnar, Gunther, Hall, Hand, Irons, E. Kaplan, Kendrick, Kinney, Knight (Emeritus), S. E. Krasnow, Last, Lichtenstein, Lundy (Emeritus), Lusk (Emeritus), McMillan, Mehlman, Mosko, Muenster, B. G. Nelson, J. T. Paul, Perlman, Perlstein (Emeritus), Pilot (Emeritus), Pilz, Pollak, Polley, Poske, Pyle, Ranke, Ravenna, S. H. Rosenblum, Roskelley, R. Ryan, Sanazaro, Schick, Schoenberger, Schoolman, Sharp, Sheaff (Emeritus),

Slayton, Smith, Steck, Steigmann, Storey, Traut (Emeritus), Trimmer (Emeritus), Vance, Wakefield (Emeritus), Williams, Wolfe, Zivin.

Assistant Professors: Akre, A. S. Anderson, T. O. Anderson, R. J. Becker, Beers, Bessinger, Briney, Brixey, R. G. Brown, Browns, Cherniak, Coggeshall, Cotts, C. S. Davis, Detweiler, DeYoung, Dimick, Farago, Felix, Fishman, Flanagan, B. W. Fox, Foxworthy, Fried, Gailitis, Galt, Gantt, Goldmann, Goldwasser (Emeritus), Grieble, Griffin, Hahn, Hanscom, Hilkevitch (Emeritus), Holmes, Hudson, Hunter, Johnston, F. W. Jones, P. N. Jones, Kahn, B. M. Kaplan, Kesler, Kirkland, Kofman, Koik, E. S. Krasnow, Laing (Emeritus), Lee, H. Levine, Lewis, Mathy, Meyer, Moffat, Morrison, Muehrcke, Mufson, Necheles (Emeritus), Neuhaus, Nora, Perlia, Phelan, Pietras, Post, Pouget, Prec, Presley, Rosenberg, Ruggie, Salberg, Sapienza, F. D. Schwartz, Shafter, Sparagana, Tarun, Thomson, Toigo, Treger, Tucker, Weisberg, Winter.

Research Assistant Professors: E. D. Stanley, van der Hem, VanLith.

Lecturers: Alvarez (Emeritus), Deuss, Fishbein (Emeritus), Hoffman, Levy, O. Paul, A. H. Rosenblum, Sargent, Stern, Straus, Talbott, Wolf.

Associates: Carter, Cece, J. A. Davis, DeJong, Fisherman, R. E. Fox, Furlong, Grimelli (Emeritus), Grosz (Emeritus), Hayes, Hedblom, Hedges (Emeritus), Highstone, Hoeppner (Emeritus), Kaganiec, F. B. Kelly, Jr., Kirby (Emeritus), Kristy, Matlin, Mayer, Meredith, C. A. Montgomery, O'Brien, Oden, Ohringer, Penev, Robbins, Rosset, Scala, Stone, J. F. Strauss, Jr., Tausk, Teplitz, Thrift, Vil, Vondrasek, Zvetina.

Research Associates: Lin, Muldoon.

Instructors: Aronson, Bach, F. O. Becker, Blazek, Bonbrest, Boswell, Boxer, Branit, W. C. Brown, Budrys, Cady, Casas, Charous, Clark, Clay, Cohen, T. J. Coogan, Jr., Dale, Devetski, Dunkelberger, Dyniewicz (Emeritus), Economou, Erickson, Fernandez, Fischbarg, Fish, Foresman, Fort, Foth, Frankel, Freeland, Freud, Garcia-Camilo, Garr, Georgoulis, Goldstein, Griffiths, Gubish, Gustafson, Haase, Hamby, Hertko, Jamieson, J. C. Jones, Kassriel, Keer, Kulis, E. N. Levin, Loeb, Longabaugh, McBryde, McCreary, Mann, Medenis, Mellody, Messmore, G. A. Nelson, Neustadt, J. S. Newman, K. J. Newman, O'Grady, Olson, Pap, Perry, Pochyly, Pomerantz, Powers, Rowe, W. G. Ryan, Saliba, Santos, Schmale, Scholly, Schuessler, Scupham, Silins, Snapp, Sokol, Sosa, Suhs, Tarzynski, Tauber, Teng, Thor, Trubitt, Twiss, Vastine, Waxman, Zeman, Ziolkowski.

Assistants: Balter, Blain, Brody, Chertow, Colandrea, Conrad, Curtis, Drake, Gellerman, Gilson, Grais, Gregory, S. J. Heller, Horky, Kaiser, Kane, Kilbridge, Lang, Lawrence, B. Levin, P. D. Levin, B. W. Levine, Lindberg, Moran, Navarro, Nemickas, Northrop, Oyama,

Real, D. P. Riff, L. J. Riff, Robbins, Rosenblate, Schaaff, Shen, Showel, Sloan.

Research Assistants: Aldor, Arani, Faiman, Friedland, Heymann, Lolans, McClain, Mercer, P. H. Miller, Mueller, Olexy, Pillay, Rikl, Rubenis, Santani, Sisco, Tufo, Wilson.

Required Courses — Second Year

325. **The Examination of the Patient.** Instruction in history-taking and physical examination of the patient. Normal findings are demonstrated early in the course, and thereafter work on the wards of six hospitals deals with the close study of patients with abnormal findings. A one-hour lecture once a week deals with selected topics not covered in the texts. Special instruction is given in the Departments of Obstetrics and Gynecology, Orthopaedic Surgery, and Otolaryngology. Small sections of four students meet with an instructor for a three-hour practical teaching session once a week; F, W, and Sp.

326. **Systematic Study of Important Diseases.** Given in conjunction with the Department of Pediatrics. The first series of lectures covering the major diseases in the field of internal medicine. Two hours each week; Sp.

Required Courses — Third Year

350. **Systematic Study of Important Diseases.** Given in conjunction with the Department of Pediatrics. Continuation of lectures covering the major diseases in the field of internal medicine. Two hours each week, F and W; one hour each week, Sp.

354. **Bedside Teaching Clerkship.** Cook County Hospital and Presbyterian-St. Luke's Hospital. Students are directed in their work by the associates and attending men of these hospitals. Thirty-five hours each week; F, W, and Sp.

Required Courses — Fourth Year

377. **Outpatient Clerkship.** Research and Educational and Presbyterian-St. Luke's Hospitals. One-fourth of class. Three half days each week; S, F, W, and Sp.

378. **Inpatient Clerkship.** Research and Educational Hospitals, West Side Veterans Administration Hospital, and Hines Veterans Administration Hospital. Minimum of forty-four hours each week for six weeks; S, F, W, and Sp. Additional time may be required at the discretion of the chief of the medical service to which the student is assigned.

Alternative Quarter Program

399. **Tutorial Studies in Internal Medicine.** These studies are pursued with members of the Department of Medicine at Chicago-State Tuberculosis

Sanitarium, Cook County Hospital, the Hines and West Side Veterans Administration Hospitals, Presbyterian-St. Luke's Hospital, and the Research and Educational Hospitals. An intensive three-month course, under tutorial supervision, in a clinical or investigative area of internal medicine. Forty-four hours each week; S, F, W, and Sp.

Elective Courses — Not for Credit

360. **Elementary Survey of Radiobiology.** This course introduces the student to the characteristics of ionizing radiation and its interaction with matter and living systems, from chemical components through cells, tissues, organs, and organisms. The medical aspects of radiation genetics, radiation sickness, and the clinical use of radioisotopes are included. Limited to twenty students. Sp.

361. **Introductory Computer Programming with Medical and Biostatistical Applications.** Lecture and laboratory course on function and programming of digital computers for biostatistical and other medical analyses. The course includes elementary FORTRAN and TABTRAN programming languages, writing of programs involving elementary statistical and mathematical methods as applied to problems of medical research, programs to be run on an IBM-1620-2 computer. W.

362. **Clinical Physiology of the Gastrointestinal Tract.** Seminars are to be prepared by students on selected subjects in advanced physiology of the digestive tract. Guidance in preparation and extended discussion is given by members of the faculty and by faculty from other schools. W.

363. **Application of Physiological Principals to Clinical Medicine.** The application of basic physiological principles in a clinical setting are considered. There is presentation of patients and their clinical problems, to which is added discussion of underlying physiology, demonstration of techniques of measurement and recording, and their interpretation. The relevance of basic science to clinical diagnosis and therapy is emphasized. Lecture-conference-demonstration, one two-hour session weekly for nine weeks; W.

364. **Clinical Problems in Cardiovascular Physiology.** The function of the human heart in health and disease is considered by means of discussions of patients who have been extensively studied in the Cardiovascular Laboratory of the Department of Medicine. Emphasis is particularly placed upon understanding the regulatory and compensatory mechanisms which underlie the maintenance of circulatory performance in many under normal and abnormal conditions. Freshmen and sophomores. W.

365. **Advanced and Applied Respiratory Physiology.** The course consists of eleven weekly lecture-demonstration-seminar sessions lasting two hours each and covering the essentials of respiratory physiology and clinical pulmonary function testing. Students are required to complete a library

research project on an aspect of respiratory physiology of their choice under the guidance of a faculty preceptor. Sophomores, juniors, and seniors. F.

Required Courses — Other Colleges and Schools

Occupational Therapy 324. Lectures on Medical Conditions. School of Associated Medical Sciences.

MICROBIOLOGY

Professors: Dray (Head of Department), Deinhardt, Kempf, Nisonoff, Novak.

Associate Professors: Hammond, Khoobyarian, Kroeger, LeBeau, Markowitz, Meyer (Emerita), Pumper, Vicher, Widra.

Assistant Professors: Ainis, Anderson, Haque, Holmes, Lange, Lavrin, Northrop, Taylor.

Research Associate: Shramek.

Instructors: Landau, Marczynska.

Assistant: Knoll (Emerita).

The course in microbiology is offered during the first and second quarters of the second year. Instruction is based upon a study of fundamental principles involving morphology, physiology, and distribution of bacteria and related organisms. Following a brief study of representative members of nonpathogenic and useful species, the student is introduced to the study of harmful bacteria and the nature of the diseases which they produce, together with antibiotic concepts and immunological and serological considerations. Pathogenic fungi, rickettsia, and viruses are included in this beginning course, as well as organisms responsible for tropical diseases. Special emphasis is placed on the ubiquitous nature of bacteria so that the student can more readily comprehend epidemiological problems and the host-parasite relationship in subsequent courses. Laboratory, diagnostic, and other practical procedures are stressed, as well as the interpretation of laboratory results in the light of other clinical evidence. During the second quarter, hospitalized patients with typical bacteriological entities are presented as diagnostic problems, and demonstrations are conducted emphasizing important historical data and the need for further laboratory studies. The taking from patients of specimens for bacteriological analysis by proper aseptic technique is demonstrated. Completion of an individual project by each student is required.

Undergraduate courses in microbiology are also offered to dentistry, occupational therapy, nursing, and pharmacy students.

A full program of graduate work, including individual courses in advanced medical microbiology, virology, cytology, genetics, mycology, immunology, and

immuno-chemistry, is offered to medical students who can qualify for graduate work leading to the M.S. or Ph.D. degree. Complete descriptions of courses and requirements for registration of medical students for concurrent work toward a graduate degree in microbiology are contained in the Graduate College catalog. Properly qualified medical students are encouraged to gain experience in the field of research through pursuit of graduate studies and to discuss these possibilities with members of the microbiology staff.

Required Courses — Second Year

325. Microbiology. A study of the general morphology, metabolism, serology, and pathogenicity of the important bacterial agents of communicable diseases; action of germicidal agents, sulfonamids, penicillin, streptomycin, and other antibiotics; factors in parasitic offense and mechanisms of host defense. Detailed consideration of pathogenic bacteria. Three lectures and six hours of laboratory each week; F.

326. Microbiology. Continuation of Microbiology 325. Detailed consideration of viruses, pathogenic fungi, protozoa, spirochetes, rickettsia, and other microbial agents of disease. Serological methods and routine hospital laboratory procedures applicable to diagnosis of communicable diseases. Two lectures and four hours of laboratory each week; W.

Required Courses — Other Colleges and Schools

Bacteriology 101. Introduction to Microbiology. College of Nursing.

Microbiology 233. Microbiology. College of Pharmacy.

Microbiology 605. Microbiology. College of Dentistry.

Occupational Therapy 324. Microbiology for Occupational Therapy. School of Associated Medical Sciences.

NEUROLOGY AND NEUROLOGICAL SURGERY

Professors: Oldberg (Head of Department), Avery (Emeritus), O. T. Bailey, P. Bailey (Emeritus), Cohen, Garvin, F. A. Gibbs, Lichtenstein, Sugar, H. C. Voris.

Research Professor: Hartmann.

Associate Professors: Amador, Boshes, Drori, Higman.

Assistant Professors: Arnold, Redding, Rosenbluth, Textor.

Research Assistant Professor: Harrison.

Associates: Burns, A. B. Johnson, Manfredi, Sorum, Tobias, D. C. Voris, Zolt.

Research Associate: Mackler.

Instructors: Anderson, Herba, E. D. Johnson, Kienast, Metrick, Mileris, Whisler.

Assistants: Carroll, Goldfarb, Matz, Nagle, Taekman, Williams.

Research Assistants: Demeter, E. L. Gibbs.

Neurology and neurological surgery are the sciences having to do with the diagnosis and treatment of organic medical and surgical conditions affecting the central and peripheral nervous system.

The teaching for sophomore students includes six lectures on the fundamentals of the neurological examination. These are incorporated into the course in physical diagnosis conducted by the Department of Medicine. Five lectures on basic neuropathology are also incorporated into the course in general pathology. Instruction in the winter quarter of the junior year embraces the fundamentals of neurology, including the complete neurological examination of the individual, together with the interpretation of the abnormal findings which exist when various parts of the nervous system are affected. Lectures and clinical presentations on the medical diseases affecting the nervous system, including their symptoms, courses, pathological bases, and treatment, are given in the spring quarter of the junior year. In the senior year, instruction includes a course in clinicopathological correlation of the various processes affecting the nervous system; and a course in the fundamentals of neurological surgery.

A portion (forty students) of the senior clinical clerkship under the direction of the Department of Medicine is assigned to the neurology outpatient department in groups of six, for six weeks each.

Graduate work is also offered in neuropathology and clinical neurology.

Required Courses — Fourth Year

376. **Neurological Surgery.** Lectures and demonstrations of neurosurgical problems. Presented to half the class in one quarter and repeated for second half in next quarter. Two hours a week; F, W.

Alternative Quarter Program

399. **Neurology and Neurosurgery Clerkship.** Clerks have both inpatient and outpatient work, attend rounds given by the attending staff, and attend the weekly conference, in which cases are demonstrated. A six-week clerkship (mornings only) limited to ten students; S, F, W, and Sp.

Neurology

Professor: Cohen (Head of Section).

Required Courses — Third Year

350. **Fundamentals of Neurology.** A correlation of the anatomy, physiology, pathology, and clinical examination of the nervous system. One hour each week; W.

351. Medical Neurology. Systematic lectures and clinical demonstrations of the principal diseases of the nervous system. One hour each week; Sp.

Alternative Quarter Program

398. Medical and Basic Neurology Clerkship. (Presbyterian-St. Luke's Hospital.) Six students are assigned inpatient and outpatient neurology cases. They make rounds, attend teaching conferences, and assist in performance and evaluation of neurologic diagnostic procedures. Two additional students can be accommodated in basic neurology research laboratories. They work on investigation in progress in the laboratories and are taught to carry out appropriate investigative procedures. A twelve-week clerkship limited to eight students; S, F, W, and Sp.

Required Courses — Other Colleges and Schools

Occupational Therapy 324. Neurological Conditions. School of Associated Medical Sciences.

OBSTETRICS AND GYNECOLOGY

Professors: Mengert (Head of Department), Allen (Emeritus), Boysen, Browne (Emeritus), Edwards (Emeritus), Falls (Emeritus), Kaminetzky, Klawans.

Associate Professors: Andresen, Benensohn, Burchell, Farley, FitzGibbons, Freda, Glenner, Harrod, Kobak, Lifvendahl, Mauzey, Payne, Priest, Rezek, Stepto, Waddington, Wolff.

Assistant Professors: Bacon (Emeritus), Bartels, Baum, Beebe, Boley, Carey, Couri, DiGiulio, Draa, Farmans, Finola, Geittmann, Gibson, Heiberger, Kaye, Krause, Lavieri, Lee, Lobraico, Long, Marshall, Miller, Orban, Pepper, Pill, Pitkin, Ricks, Rutgard, Sered (Emeritus), Sholder, Siegel, Smith, Spiegel, Sykora, Sylvester, Teton, Truchly, Walsh, Zummo.

Associates: Rodriguez, Schewitz.

Instructors: Angell, Fahrenbach, Falloon, Gardner, Kostelny, Lamiot, LeVine, Mullen, Nyman, Odell, Olson, Rojas, Rosner, Rubinstein, Ruskin, Sampson, Scalzitti, Stone, Sussex, Swasdio, Tateiwa, Tolwinsky, Treadwell, Vlasis, Wallheiser, Wiersma, Zwirek.

Assistants: Aimone, Blumstein, Caviles, Chan, Daskal, DeSandre, Donovan, Freel, Gawecki, Hamilton, Hilton, Irigoyen, Kahn, Kenwick, Kim, Oberhelman, Oleck, Taylor, Tulcinsky.

Obstetrics and gynecology are presented to the student as a single discipline. The obstetrician-gynecologist deals with woman as a person, during her repro-

ductive career, and with those functional aberrations and diseases of the female generative tract occurring during any time of life.

Teaching begins in the second year when this department participates in a course in physical diagnosis, given by the Department of Medicine. Two lectures are given to the entire class, and in addition, students in small groups spend two periods of three hours each in the clinic learning the principles of history-taking and pelvic and prenatal examination.

Following a weekly lecture course in the third year, the major teaching of this department is during the fourth year through the medium of a three-month clinical clerkship.

Required Courses — Third Year

350. Principles of Obstetrics and Gynecology. The anatomy, physiology, pathology, the major disease concepts of the female genital tract, and the physiology and pathology of reproduction are presented in a series of integrated lectures. Entire class, one hour a week for eight weeks; F.

Required Courses — Fourth Year

375. Clerkship. Each senior student spends twelve weeks on the obstetric-gynecologic service. Approximately four-fifths of the students serve clerkships at Research and Educational Hospitals. During two weeks of this clerkship, the student is expected to stay in a dormitory ward in the hospital twenty-four hours a day, on call for all events transpiring in the birth rooms. One-fifth of the students serve clerkships at Presbyterian-St. Luke's Hospital. The entire time of each student is assigned to the Department of Obstetrics and Gynecology, irrespective of which hospital he serves. The student serves as a junior house officer, or clinical clerk, and is responsible for histories, physical examinations under supervision, and the delivery of such normal patients as may be assigned to him. Each student should expect to deliver about ten women. He also participates in all gynecologic operative procedures on his assigned patients. The student attends certain ward rounds, classes, seminars, manikin demonstrations, tumor conferences, journal clubs, and in general is merged into the total program of the department. S, F, W, and Sp.

Alternative Quarter Program

399. Clerkship. This clerkship offers training in depth above the level provided by the obstetric-gynecologic clerkship. The program includes ward care, formal teaching in pathology, literature and patient care seminars, and a study of pelvic malignancy including cancer conference, general principles of therapy, and radiation and surgical techniques. Selected students may be given the opportunity to meet the course requirements by pursuing an independent, limited research project or by assisting in ongoing departmental research in cooperation with a senior staff member. Limited to five

seniors. Prerequisite: Senior clerkship in obstetrics and gynecology. W and Sp.

OPHTHALMOLOGY

Professors: Kronfeld (Head of Department), Beard (Emeritus), Hughes, Moncreiff (Emeritus).

Associate Professors: Apple (Emeritus), Fowler (Emeritus), Haas, McDonald, McGarry, Pearlman, Snydacker, Theobald (Emerita), Zekman.

Assistant Professors: Allen, Ey, Fantl, Folk, Fordon, Herbst, Kirk, Krimmer, Light, Maher, Oleari, Pushkin, Russman, Schall, Scheribel, Stillerman, Tatar, Tennenbaum, Ticho, Urist, Wilder.

Lecturer: Klein.

Associates: Brown, Carroll, Deutsch, Leech (Emeritus), Spiro, Tresley.

Instructors: Curnyn, Fox, Hinken, Kraff, Menachof, Miller, Nadel, Nowicki, Rabb, Roberts, Schmidt, Yocum.

Assistants: Burton, Chapman, Close, Dahl, Davidorf, Feldman, Geiss, Gieser, Gorsich, Hatlelid, Hindle, Kozil, Lipsich, Moran, Oskooi, Robbin, Scanlon, Schatz, Spitzer, Vygantas.

The goal of the instruction in ophthalmology is to enable the student to integrate the principles of basic science into the problems of ocular disease, to learn about the techniques of examination of the eye, to know the ocular manifestations of systemic disease, and to recognize the common ocular diseases likely to be encountered in general practice.

This instruction is given in the form of lectures and multilithed notes during the fourth year.

Supplemental practical work in ophthalmology (clerkship in ophthalmology) is offered during the alternative quarter.

Required Courses — Fourth Year

375. Didactic Instruction. Illustrated lectures and multilithed notes covering (1) eye manifestations of general systemic disease and (2) ocular diseases commonly encountered in the general practice of medicine. Presented to half the class during the first two quarters and repeated for the second half during the next two quarters. One hour a week; S, F, W, and Sp.

Alternative Quarter Program

399. Clerkship. Participation (under supervision) in clinical and hospital activities of the department, including attendance at clinical conferences, in specialty clinics and surgery. Limited to four students a period. Full time for two weeks; S, F, W, and Sp.

ORTHOPAEDIC SURGERY

Professors: Ray (Head of Department), F. W. Hark (Emeritus), Lambert.

Associate Professors: Fox, Heck, Murphy (Emeritus), Scuderi, Shapiro.

Assistant Professors: Apfelbach, Hejna, Howard, Jacobs, Lidge, Marshall (Emeritus), Meany, Meltzer, Pellicore, Shafer, Stevens, Turner (Emeritus).

Associates: Ahstrom, Fetrow, Hamilton, W. A. Hark, Huncke, Newman, Siegel.

Instructors: Bliss, Brandon, DeWald, Eftekhar, McNeill, Morris, Quinn, Stone.

Assistants: Barash, Ellis, Goldstein, Schiller, Schrodt, Wittenstrom.

Orthopaedic surgery is that branch of medicine dealing with investigation as well as preservation and restoration of the form and function of the extremities, spine, and associated structures by medical, surgical, and physical methods.

The basic aim of the undergraduate teaching program of the department is to give the student some fundamental knowledge of diseases and deformities as they affect the locomotor systems. The fundamental principles of treatment are covered, including application of casts, braces, traction, medical management, and surgery. A secondary aim is to help the student develop the skills necessary to carry out an examination, reach a diagnosis, and to treat the patient. Emphasis is placed on the relationship between the basic sciences, the clinical aspects of orthopaedics, the other fields of medicine and surgery, and the paramedical services.

During the sophomore year, instruction is given in the general principles of functional anatomy as they relate to the examination of the patient.

During the junior year, a series of demonstrations and conferences is given on the principles of differential diagnosis and treatment of the major orthopaedic conditions. The purpose of this course is to lay a sound foundation for the clinical clerkship which is held during the senior year.

The clerkship provides the student with an opportunity to see first-hand many orthopaedic conditions both in adults and children, to scrub with the surgical team in the operating room, to assist in the application of traction and casts, and to follow cases on the wards and in the clinics. Special seminars are held on regional examination of the musculo-skeletal system, office orthopaedics, trauma, and rehabilitation. In addition, during the senior year, instruction is given in the general principles of diagnosis and treatment of fractures.

For interested and qualified medical students, special opportunity is provided to participate in an advanced clerkship or in the departmental research program.

Postgraduate study in orthopaedics is provided through a four-year residency which leads to national board eligibility.

Required Courses — Third Year

350. Clinical Orthopaedic Surgery with Demonstrations. Consideration of orthopaedic problems and the general principles of treatment. Two hours each week; Sp.

Required Courses — Fourth Year

375. Introductory Course in Fractures. Discussion of basic principles of fractures and their treatment. One hour a week; F and Sp.

376. Clerkship. Observation and study of orthopaedic cases, adult and children, together with practical demonstrations of orthopaedic conditions, ward rounds, seminars, and surgical and outpatient procedures. One month during inpatient quarter; S, F, W, and Sp.

Alternative Quarter Program

399. Clinical Clerkship. Opportunity is provided for participation in the activities of the orthopaedic department including emergencies, special clinics, and seminars. Students electing this course may spend the full period on the fracture service at Cook County Hospital, on the Orthopaedic Service at Presbyterian-St. Luke's Hospital, or the University of Illinois Research and Educational Hospitals, in the research laboratories of the department, or the quarter may be divided into various combinations of the foregoing services depending on the specific interests of the individual student. This course is offered as a further introduction to diagnostic problems, methods of treatment, and principles of research as applied to the locomotor systems. Prerequisite: Senior orthopaedic clerkship. W and Sp.

Required Courses — Other Colleges and Schools

Occupational Therapy 324. Orthopaedic Conditions. School of Associated Medical Sciences.

OTOLARYNGOLOGY

Professors: Lederer (Head of Department), Andrews, Friedberg, Holinger, Hollender (Emeritus), Lewis, Loewy, O'Neill, Skolnik, Soboroff, Theobald (Emeritus), Van Alyea (Emeritus).

Research Professor: Derbyshire.

Associate Professors: Buckingham, Dalitsch, Friedman, Lewy, Livingston (Emeritus), Morwitz (Emeritus), Torok, Wallner, Watkins (Emeritus).

Assistant Professors: Austin, Beers, Blumenthal, Chainski, Coombs (Emeritus), Dale, Elliott, Frueh, Greene (Emerita), Gyorkey, Heinze, Jeantet, Joseph, Mansueto, Marcus, McCauley, Plotkin, Ratko, Satz, Siedentop, Tenta, Weidemann.

Associates: Borkenhagen, Casciaro, Driessen, Ferrer, Kodros, Kowal, Kurth, Razim, Scaramella, Schild, Smiley (Emeritus).

Instructors: Eggert, Field, Guemmer, Mozer, Peterson, Schotland, Scott, Sirugo, Walton.

Assistants: Aaronson, Campbell, Comito, Ford, Geick, Gendler, Jones, Karam, Laker, Levitats, Madigan, Meyers, Middleton, Mills, Pastorek, Rehmeyer, Ross, Saberman, Siegel, Stearn, Tardy, VanNuys, Weiss, Wineinger.

Otolaryngology concerns itself with the study of the upper respiratory system, the upper digestive tract, and the special senses of speech, hearing, and olfaction in health and in disease. This includes the social, physiological, and physical aberrations of malfunction as they relate to otology, rhinology, laryngology, bronchoesophagology, maxillofacial surgery, otoneurology, and communication sciences.

Otology, the study of the functions of the ear, not only has for its primary aim the diagnosis and treatment of diseases of the ear, but also the equally important facet of the social rehabilitation of the deaf and hard of hearing. So great are the social implications of disturbed speech and hearing, that audiology forms an important division of otolaryngology. Bronchoesophagology concerns itself with direct visualization, diagnosis, and therapy of conditions which affect the esophagus, larynx, and tracheobronchial tree.

The primary aim is to teach the undergraduate competent examining techniques in order to recognize disease or malfunction in these systems and to evaluate the method of arriving at a correct diagnosis so that therapy may be intelligently applied.

For the practicing otolaryngologist, courses are offered in bronchoesophagology and in current trends in otorhinolaryngology. Those desiring to specialize in otolaryngology may enroll in a basic course designed to teach the principles and the methods of the specialty. Residencies, under departmental supervision, are available in the Research and Educational Hospitals, the Illinois Eye and Ear Infirmary, Presbyterian-St. Luke's Hospital, and Hines Veterans Administration Hospital.

The following divisions are represented: (1) otolaryngology, (2) bronchoesophagology, (3) communication sciences, and (4) maxillofacial surgery, including neoplasms of the head and neck. The required course of study is so arranged that didactic instruction precedes practical application of the specialty, emphasizing its relation to general medicine in a total person concept. Physical examination of the ears, nose, and throat is taught in the second year. As part of a pediatric clerkship in the third year, these diagnostic methods are given special emphasis with reference to clinical states in infants and children. In the fourth year, instruction is provided in the basic principles of the specialty by lectures augmented by conferences in small groups, and through opportunities to apply the principles of diagnosis and treatment in outpatient clinics where the student is taught by direct contact with patients.

Required Courses — Fourth Year

376. **Clinical Instruction in Ear, Nose, Sinuses, Pharynx, and Larynx.** Surgical anatomy, physiology, applied pathology, and treatment. Presented to half the class during the first two quarters and repeated for the second half during the next two quarters. One hour a week; S, F, W, and Sp.

Alternative Quarter Program

399. **Clerkship.** The program includes student participation in the history-taking and recording, examination, diagnosis, and treatment of acute conditions, planning for the management of chronic states, and the follow-up care of patients in the outpatient clinic. This experience is conducted under supervision of the attending staff at the Research and Educational Hospitals, Presbyterian-St. Luke's Hospital, and Illinois Eye and Ear Infirmary. There also is opportunity to assist in the outpatient department, in the hospital, join ward rounds, and when appropriate, in surgery. The Communication Science Center staff at the Illinois Eye and Ear Infirmary demonstrates and supervises student participation in their special aspects of diagnosis and treatment. Attendance at the weekly departmental tumor conference and the weekly seminar are an integral part of the student's assignment and experience. Students join with members of the house staff in their educational and service experiences. Every afternoon, Monday through Friday, for six weeks; S, F, W, and Sp.

Elective Courses — Not for Credit

360. **Correlation Clinic in Communication Problems.** The course is divided into a pair of two-hour meetings on each of six topics. At the first meeting, the topic is given in the form of patient complaint for which the group develops all possible hypothetical explanations. The group then talks with the patient to expand or limit these hypotheses. At the second meeting, the staff presents clinical work-up of this patient followed by open discussion. The goal is to develop the students' capacity to generate and test his ideas and to work out an epistemology of medicine. Two hours a week; Sp.

PATHOLOGY

Professors: Krakower (Head of Deparment), Bennett, Fuller, Hass, Leroy, Levinson (Emeritus), Mason, McGrew, Milles, Pirani, Stern, Swerdlow.

Professorial Lecturer: Cahn-Bronner (Emeritus).

Research Professor: Catchpole.

Associate Professors: Ayer, Bauer, Cheatle, Clasen, Eisenstein, Friederici,

Johnson, Kearns (Emeritus), Learner, Tenczar, Thompson, Valaitis, Wong.

Assistant Professors: Alexander, Barron, Battifora, Coppel, Fleischer, Gyori, Habegger, Jablokow, Pritchard, Rabinovitz, Ring, Smith.

Lecturers: Eckner, Hirsch (Emeritus), King, Lev.

Associate: Peison.

Research Associate: Greenspon.

Instructors: Coogan, Dainauskas, Goldman, Henson, Hosek, Manaligod, O'Brien, Paloucek, Sommer, Torres.

Assistants: Amirmokri, Carrara, Friedman, Gillum, Ho, Karachorlu, Lee, Miller, Pellettiere, Stach, Teves, Victor.

Pathology is that branch of natural science which is concerned with disease, its essential nature, its causes and development, and the structural and functional changes occurring in the living bodies in which the disease exists.

Thus, following courses in anatomy, biochemistry, and physiology in the first year, the student is prepared to begin the study of pathology. General pathology is given during the first quarter of the second year. Special pathology and clinical pathology are presented in a single integrated program during the second and third quarters. A course in surgical pathology, given in collaboration with the Department of Surgery, is offered in the third year.

Required Courses — Second Year

325. General and Clinical Pathology. The basic principles of pathological processes, including tissue injury and repair, inflammation, circulatory disturbances, retrograde processes, and tissue responses to specific infectious agents and neoplasms, are considered in the first part of the course. In the latter part, the disease processes affecting each organ and anatomic system are considered in greater detail. The pathologic physiology and biochemistry of disease are closely integrated with the morphologic changes. Essential diagnostic laboratory procedures are discussed as to their purpose and the manner of evaluating the results. The laboratory exercises are designed to correlate and interpret the gross and microscopic changes occurring in diseased tissues. Essential diagnostic laboratory tests are performed in relation to the diseased organ or system under study. Ten hours each week, F; nine hours each week, W; ten hours each week, Sp. In addition, each student is expected to attend at least seven autopsies during the year for a total attendance of twenty-one hours.

Required Courses — Third Year

351. Surgical Pathology. Selected clerks describe the gross and microscopics of their own cases to the group of students assigned to surgical pathology with at the same time a correlation of clinical and anatomical findings.

In addition, there is a systematic review of surgical pathology covering both gross microscopic and clinical aspects. One two-hour period each week; F, W, Sp, and S.

Alternative Quarter Program

399. Clerkship in Pathology. Students electing this clerkship may spend the full quarter either in the division of anatomic pathology or in the division of clinical pathology, or the quarter may be divided into six weeks in each of the divisions, or six weeks in one of the divisions. The clerkship in anatomic pathology includes participation in autopsy work, surgical pathology, and in exfoliative cytology. In clinical pathology, instruction has been arranged in the fields of clinical chemistry, clinical serology and blood banking, clinical bacteriology, and hematology, with particular reference to clinical correlations. During the clerkship, students are expected to attend the departmental conferences in pathological anatomy and clinical pathology. S, F, W, and Sp.

Elective Courses — Not for Credit

360. Seminar in Medical Writing. With special orientation toward medical problems, the course analyzes the characteristics of good writing and bad writing. It provides opportunity for improving student skills in written communication.

Required Courses — Other Colleges and Schools

Medical Technology. Participation in planning and teaching. School of Associated Medical Sciences.

Occupational Therapy 324. Introduction to Pathology for Students in Occupational Therapy. School of Associated Medical Sciences.

Pathology 101. Principles of Pathology. College of Nursing.

Pathology 605. General Pathology. College of Dentistry.

PEDIATRICS

Professors: Schulman (Head of Department), Biggs (Emeritus), Bronstein, Butler (Emeritus), Christian, Cornblath, Greengard, Grossman, Harrison, Hoffman, Knobloch, Lis, R. A. Miller, Rosenthal, Sanford (Emeritus), Shaw, Spaeth.

Associate Professors: Abildgaard, Breslow, Bucheleres, Halpern, Hyde, Leichenger, Lewison, Mosier, Pachman, Richter, Schulz, Stulik, (Emeritus), Welford, Welker.

Assistant Professors: Barron, Bohning (Emerita), Budzeika, Chao, Christopherson, Cornet, Crawford (Emeritus), Cunningham, De Young,

Gotoff, Hall, Hastreiter, Isaacs, Jackson, Jones, Keith, Lander, Lendrum, Limosani, Mack, Medenis, H. R. Miller, Morales, Nagel, Newman, Pildes, Polniaszek, Prec, Sacks, Shkolnik, Shmigelsky, Singh, Stepan, Swartz, Thomas, Trevino, Wolf, Wright.

Lecturers: Dammers, McCulloch (Emeritus).

Research Associates: Arevalo, Patacsil, Serratto-Benvenuto, Warren.

Instructors: Africa, Alcalde, Buzdygan, Celewycz, Coronel, De Ramos, Fernandez, Forbes, Gruber, Huang, Jedliczka, Jung, Kiley, Knoblock, LoPriore, Mandel, Nelson, Nolan, O'Shea, A. Perez, I. Perez, Saed, Salinas, Sharifi, Snow, Stine, Vitullo, Willis, Yahiro.

Assistants: Abella, Atwood, Bell, Gillman, Harris, Lewy, Mangurten, Masquet-Manaligod, Melyn, Neglur, Neuhauser, Rothner, Santucci, B. Siegel, S. Siegel, Woodrum.

Research Assistant: Asrow.

The major portion of instruction in pediatrics is given in the junior year by means of a twelve-week clinical clerkship devoted to the study of care of infants and children. During the clerkship each student spends six weeks on an inpatient pediatric service and six weeks in a pediatric outpatient clinic. One-half of the group spends six weeks on the inpatient pediatric service at the Cook County Children's Hospital and six weeks in the outpatient clinic at the Research and Educational Hospitals. The other half of the group spends six weeks on the inpatient pediatric service at the Research and Educational Hospitals and six weeks in the outpatient pediatric clinic at the Presbyterian-St. Luke's Hospital. During the inpatient service the student is placed in intimate contact with the problems of diagnosis and treatment of the sick child. In the outpatient clinics emphasis is placed on the ambulatory patient and on preventive pediatrics as demonstrated in well-baby clinics. In each portion of the clerkship the history and physical examination of the patient are performed initially by the student, following which the case is discussed with an instructor. By having six continuous weeks on the inpatient service, the opportunity for following the course of patients is afforded. In the outpatient department the student is asigned a new patient daily as well as the return visits of patients he has previously seen. Whenever possible the student is encouraged to participate in diagnostic and therapeutic procedures which are performed on his patients.

On the wards the student participates in ward rounds, seminars, and special conferences which are conducted by the resident and attending staffs. At the Research and Educational Hospitals student seminars in pediatrics are held five afternoons weekly during which case presentations are made by the student for discussion with members of the faculty.

During the clerkship small groups of students also receive instruction at the Cook County Contagious Hospital and at the Illinois State Pediatric Institute, thus providing experience in communicable and neuropsychiatric problems of children.

Throughout the clerkship the processes of normal physical and emotional growth and development are emphasized, as are the total implications of illness on the child and on his family.

Required Courses — Second Year

326. Systematic Study of Important Diseases in Childhood. In cooperation with the Department of Medicine a series of lectures in pediatrics and medicine are begun in the spring quarter of the sophomore year. The pediatric lectures in this series stress the introductory aspects of the study of children with the specific reference to physical and psychological growth and development, nutrition, and the special problems of the newborn infants. Two hours each week; Sp.

Required Courses — Third Year

350. Systematic Study of Important Diseases in Childhood. This combined lecture series in cooperation with the Department of Medicine continues a lecture course begun in the sophomore year and covers the major diseases in the field of pediatrics. By combining the medicine and pediatric lectures, an integrated approach to illness is made possible and the comparative aspects of diseases in children and adults are highlighted. Two hours each week continuous through F, W, and Sp.

351-352. Clinical Clerkship. Conducted at Cook County Hospital, Presbyterian-St. Luke's Hospital, and the Research and Educational Hospitals. Six weeks of inpatient ward service and six weeks of outpatient pediatric clinic service. Thirty-five hours each week; F, W, and Sp.

Alternative Quarter Program

398. Advanced Tutorial Studies in Clinical Pediatrics. The student spends the entire quarter on the inpatient service at either the Research and Educational Hospitals or the Presbyterian-St. Luke's Hospital. He is given increased responsibility for care of patients, performance of diagnostic tests, participation in ward activities, conferences, rounds, and seminars under the direction of the resident and attending staffs. Limited to two students per quarter at Research and Educational Hospitals and two at Presbyterian-St. Luke's Hospital. S, F, W, and Sp.

399. Pediatric Sub-Specialties and Research. The student spends the entire quarter in one of the subdivisions of the Department of Pediatrics devoted to a particular field. He participates in the special diagnostic procedures performed in the individual laboratories as well as in the research program of each. The student also participates in the rounds, conferences, and clinics devoted to the sub-specialty. The following divisions in the Department of Pediatrics accept students:

1. Hematology — Research and Educational Hospitals
2. Cardiology — Research and Educational Hospitals
3. Cardiology — Presbyterian-St. Luke's Hospital
4. Endocrinology and Metabolism — Research and Educational Hospitals
5. Newborn Physiology — Research and Educational Hospitals
6. Neurology — Research and Educational Hospitals
7. Cytogenetics — Research and Educational Hospitals

A maximum of two students per quarter may be enrolled in each division. S, F, W, and Sp.

Required Courses — Other Colleges and Schools

Occupational Therapy 324. Pediatric Occupational Therapy. School of Associated Medical Sciences.

PHARMACOLOGY

Professors: Unna (Head of Department), Akcasu, Maynert, Schulman, Sherrod.

Associate Professors: Anderson, Feinberg.

Assistant Professors: Marczynski, Salafsky, Vogel.

Lecturers: Cavallito, Drill, Isbell.

Research Associates: Kitagawa, F. Nakanishi, S. Nakanishi, Rahman.

Research Assistants: Banna, Sanghvi, Tanzini.

Pharmacology is that branch of medical science which deals with the qualitative and quantitative aspects of the action of drugs upon living organisms. The required courses in pharmacology are specifically designated to acquaint the student with the properties and mechanisms of action of drugs used in diagnosis, prevention, and treatment of disease, thereby providing a rational basis for therapy.

Modern pharmacology embraces many areas such as pharmacodynamics, chemotherapy, toxicology, drug metabolism, psychopharmacology, and pharmacotherapeutics. Pharmacodynamics is the study of the effects of chemical agents, including drugs, on cell function by experimentation on living tissues ranging from cell fractions to the whole organism; these drug-induced alterations in function and metabolism are measured by methods which are common to pharmacology, physiology, and biochemistry. Chemotherapy is the study of selective toxicity of drugs for microorganisms and parasites; studies of compounds designed to exert a selective toxicity for neoplastic cells form the basis of cancer chemotherapy. Toxicology concerns itself with the noxious action of chemical compounds and the means of combating their inimical effects. Psy-

chopharmacology explores the effects of drugs on mood and behavior employing, among other procedures, psychometric methods developed by psychologists. Pharmacotherapeutics deals primarily with the clinical use of drugs, their action, effectiveness, and indications and contraindications in treating patients presenting signs and symptoms of abnormal functions.

It is evident that pharmacology is interwoven with all medical sciences. A clear comprehension of the chemistry of drugs and the biochemical and physiological response which they may influence is prerequisite to the interpretations of pharmacodynamics. Comprehension of the effects of drugs on pathological processes requires a clear understanding of the normal anatomy and the pathology of the structures affected.

Pharmacology is also closely connected with all branches of clinical medicine; rational medication is based upon accurate diagnosis and a concise knowledge of the action of the drug prescribed, either to combat the cause of the disease or to correct a dysfunction caused by the disease.

Students who wish to obtain further knowledge and experience in pharmacology and pursue research in pharmacology are encouraged to consult the department. Such opportunities are available throughout the year to qualified medical students. Special courses in advanced topics of pharmacology are given under the auspices of the Graduate College and are listed in the Graduate College catalog.

Required Courses — Second Year

325-326. Pharmacology, Toxicology, and Chemotherapy. Lectures and discussion periods, W and Sp; three-hour weekly laboratory, W; two-hour weekly demonstration, Sp.

Elective Courses — Not for Credit

406. Rational Application of New Therapeutic Agents. Presentation of pharmacological and toxicological considerations of recently developed drugs and of their rational use in therapeutics. Lectures. Sp.

PHYSICAL MEDICINE AND REHABILITATION

Professors: Abramson (Head of Department) Gordon, Kendell, Wasserman.

Associate Professors: Chu, Kohn.

Assistant Professors: Buso, Oryshkevich.

Instructor: Januszko.

Assistants: Feldman, Schwab.

Research Assistant: Tuck.

Physical medicine and rehabilitation is concerned with the application of physical agents for diagnostic and therapeutic purposes. The physical and other properties of heat, light, electricity, water, massage, and exercise are employed for the prevention of deconditioning, mobilization of joints, increase in strength, power, and endurance, for muscle re-education or improvement in general health and physical fitness. The techniques and procedures of physical medicine assist in the maximal utilization of residual abilities for total rehabilitation purposes. They include training in the physical skills required for independent living. Among the special services offered by the department are electrodiagnosis and electromyography.

Alternative Quarter Program

398. Advanced Clinical Clerkship in Rehabilitation Medicine. The purpose is to give the student extensive exposure to the field of rehabilitation medicine. It is intended to emphasize instruction in the various diagnostic tools and in the different treatment programs, utilizing patients in the hospital and in the clinic. The course takes the form of a twelve week full-time clerkship. S, F, W, and Sp.

399. Practical Application of Physical Medicine and Rehabilitation. This course is intended to acquaint the student with the physiologic and clinical basis for the use of physical therapeutic modalities and of rehabilitative procedures. Instruction in the various diagnostic tools and in the different treatment programs is emphasized. Hospital and clinic patients are utilized. Two-week, full-time clerkship; S, F, W, and Sp.

Required Courses — Other Colleges and Schools

Occupational Therapy 324. Physical Medicine and Rehabilitation for Occupational Therapy Students. School of Associated Medical Sciences.

PHYSIOLOGY

Professors: Wolf (Head of Department), Ingraham, Ivy (Emeritus), Marbarger, Reed (Emeritus), Stark, Whitehorn.

Associate Professors: Bramante, Darrow (Emeritus), Greenberg, Grimm, Marotta, Omachi, Schwartz.

Assistant Professors: Hawley, Loizzi, Moressi.

Lecturers: Eccles, Himwick (Emeritus).

Physiology is the study of living organisms, organs, tissues, and cells with emphasis on their normal functions. It utilizes the knowledge, theories, and

techniques of the physical and mathematical, as well as the biological sciences, but it remains a strict discipline with a flavor of its own.

The teaching program for undergraduate students of the College of Medicine treats mainly human and mammalian physiology. It provides a sound basis for the remainder of the curriculum and for subsequent medical practice or graduate study. Through this program the student acquires: (1) a body of knowledge in the broad discipline of human physiology appropriate to his ultimate goal of becoming a physician, (2) an understanding of relevant facts, principles, theories, and methodologies, (3) ability to translate, analyze, interpret, and utilize physiologic information, and (4) a professional attitude of responsibility for his own learning and conduct, and a skill in locating information independently.

Interested students are encouraged to pursue advanced work in physiology in the Graduate College program of the department. Opportunities to do so may be explored in consultation with staff members. Extended course offerings of the Department of Physiology are listed in the Graduate College catalog.

Required Courses — First Year

301. Human Physiology. An overview of physiology with special emphasis on fundamental principles. Lectures conferences, demonstrations. Three hours each week; F.

302. Human Physiology. Continuation of Physiology 301. Physiology of the circulation, gastrointestinal tract and liver, temperature regulation and endocrines, and radiation. Lectures, conferences, demonstrations, and laboratory. Seven hours each week; W.

303. Human Physiology. Continuation of Physiology 302. Physiology of the kidney, body fluids, central nervous system, and senses. Lectures, conferences, demonstrations, and laboratory. Seven hours each week; Sp.

Elective Courses — Not for Credit

360. Bioastronautics. To familiarize students with problems of exposing man and animals to the adverse environment of space. Emphasis is placed upon environmental physiology as applied to the space environment and the review of methods required to support life in this hostile environment. W.

Required Courses — Other Colleges and Schools

Physiology 201. Introduction to Human Physiology. College of Nursing.

Physiology 231. Human Physiology. College of Pharmacy.

Physiology 232. Human Physiology. College of Pharmacy.

Physiology 605. Physiology. College of Dentistry.

PREVENTIVE MEDICINE AND COMMUNITY HEALTH

Professors: Ostfeld (Head of Department), Batson, Lepper, Medak, Rosenthal, Shaughnessy.

Associate Professors: Andelman, Douglas, Lashof, Levitsky, Piszczek, Spies.

Assistant Professors: Carnow, Dowd, Hair, Klassen, Locke, McDaniels, Nelson, Shekelle, Sobel, Steinberg, Wolter.

Lecturers: Caseley, de Boer, Greeley, Hull (Emeritus), Masserman, Morse, Porterfield.

Associates: Tillman, Tobin, Williams, Young.

Research Associates: Dove, Kilbridge, Metzger, Sussman, Wieland.

Instructor: Goss.

Research Assistants: Fiedler, Leviton, Norsen, Shoemaker, Tamura.

The objectives of the Department of Preventive Medicine and Community Health are to increase student awareness of the importance of hereditary and environmental determinants of health and disease with special emphasis on social and economic factors; to relate these determinants to the problems of the community and individual patient; to familiarize the student with available community agencies and systems of health care that are helpful in health maintenance and prevention and treatment of illness; to coordinate the student's knowledge of clinical preventive medicine; and to provide instruction in elementary epidemiology biostatics and evaluation of data.

The basic information in these areas is provided in lectures and demonstrations in the second year and in senior seminars concerned with the major causes of morbidity and mortality in the United States.

Required Courses — Second Year

330. Preventive Medicine and Community Health. Lectures and demonstrations covering the principles of epidemiology, vital statistics, and prevention of disease. One hour per week; F and Sp.

Required Courses — Fourth Year

375. Preventive Medicine and Community Health. Seminars in which each student, with faculty assistance, prepares a 1500-word paper on a selected topic and presents it to his classmates for general discussion. There is a moderator at each session who is a faculty member. Examples of topics available are: host factors, environmental factors; natural history; community role; physician's role; primary and secondary prevention of the leading causes of death and illness in the United States. Principles of epidemiology are emphasized. Social, psychological, and economic determinants and correlates of disease are carefully considered. Three hours a week during inpatient quarter; S, F, W, and Sp.

Alternative Quarter Program

399. **Preventive Medicine and Community Health.** Students may choose any of three programs. All three have in common a twenty-four hour course in principles of epidemiology and twenty-four hours of seminars on principles of preventive medicine. In one program the remainder of the time is spent in research with one of the study groups in the department. Research experience in infectious disease, epidemiology, immunology, human behavior, and human genetics is offered. The second experience is a series of clerkships in infectious diseases in five hospitals coupled with study of the appropriate community agencies in this field. The third program is an organized study of various chronic diseases, utilizing appropriate community agencies, in industrial health, health plans, cancer detection, and health promotion and education.

Required Courses — Other Colleges and Schools

Medicine 701. Preventive Medicine. College of Dentistry.

Nursing 201. Introduction to Public Health Science. College of Nursing.

Public Health 241. Public Health. College of Pharmacy.

PSYCHIATRY

Professors: Sabshin (Head of Department), Bailey (Emeritus), Bosselman (Emerita), Carmichael (Emeritus), Cartwright, Gerty (Emeritus), Giovacchini, Haggard, Jenkin, Josselyn (Emerita), Kysar, Nielson, Pasamanick, Pollock, A. Solomon (Emeritus), Tower, Urse, Walters, Weinberg.

Associate Professors: Beiser, Benjamin, Bucher, Burstein, Greene, Gyarfas, Haines (Emeritus), Halperin, Handler, Hanni, Hoffman (Emeritus), Howard, Kaplan, Kling, McMillan, A. A. Miller, Morrison, Pollack, A. M. Robertson, R. E. Robertson, M. M. Rosenthal, Rosenwald, Rudy, Sherman (Emerita), Shimbel, D. Solomon, Spurlock, Steed, Visotsky, Williams, Wright.

Assistant Professors: Altman, Altschul, Anjam, Armstrong, Aronson, B. Baittle, M. Baittle, Benezra, Bernstein, Black, Bolin, Borowitz, Brockman, Brown, Buettner, Bussell, Chaplik, Cheifetz, DeVryer, Dolinko, Dommermuth, Drye, Ehrlich, Eisen, Evans, Futterman, Garron, Gedo, J. Gibson, Ginsberg, Gomez, H. A. Greenberg, N. Greenberg, D. Gross, M. Gross, Gwyer, Halasz, Harman, Harrigan, Harris, Haug, Heinze, Hirsch, Hughes, Israel, Jensen, Katz, Klotz, Klumpner, Koenig, Koff, Kramer, Lage, Leider, Lessing, Levine, Lifson,

Loesch, Longini, Marcus, Marquinez, Mason, McGee, Mintek, Monroe, E. Moore, R. Moore, Moraitis, Murphy, Muslin, Myran, Nemecek, Norton, Nudelman, Orlinsky, Paskind (Emeritus), Perkins, Phillips, Pieper, Rack, Ranky, Rhead, Roach, Rosenberg, M. J. Rosenthal, Ruehr, Sable, Sadow, Schlessinger, Schwarz, Segenreich, Shaiova, Singer, G. Smith, Stelling, Streicher, TePas, Tourlentes, Thurnblad, Tucker, Victor, Wasserman, Weisdorf, Wexler, Willrigh, Yufit, Zalis.

Research Associates: Abdel-Latif, Berkson.

Instructors: Barnett, Becktel, Buck, Castillo, Damptz, Demb, Fisch, Freedman, Gendein, Guise, Halper, Hoffman, Kempton, Klapman, Kuhl, Leavitt, Lockhart, R. Miller, Nyquist, Saskill, Schramm, Skinner, A. Smith, Sunderland, Van Alstine, Van Pelt, Whitman.

Assistants: Borus, Carlock, D'Agostino, David, Drom, Galich, R. Gibson, Heintz, Lewinbuk, Lightfoot, Matthews, G. Miller, Murphy, Noparstak, Tricou.

Research Assistants: Djuricich, Leahy, Pizzi.

Required Courses — First Year

310. Introduction of Concepts of Personality Development and Function. This introductory course focuses on the presentation of the basic concepts used in psychiatry proper and in medicine in general to understand patient behavior. Each concept is presented with special care to show its development from empirical data. Its goal is to provide an orientation by which the student may see the determining effects of various psychological, physiological, sociological, and psychiatric forces on the individual. Engel's "Psychological Development in Health and Disease" is used as the basic text and the first-year student is held responsible for part one which covers psychological development.

The early lectures focus on giving a perspective to the present role of psychiatric thinking in understanding of disease processes; for example, the role of psychic conflict in psychosomatic illnesses and the role of mother-child relationship in certain pediatric disturbances.

The course then approaches the formation of personality structure and function from a developmental framework. The evolution of behavior patterns from early infancy to adulthood is presented in terms of phase-specific features and the role of maturational and instinctive forces is discussed in terms of interaction with various patterns of environmental experiences. The critical-period hypothesis is presented in detail and the effects of various types of phase-specific experience in terms of their influences on not only present adaptation but on subsequent later behavioral patterns is discussed.

The development of the psychic apparatus and its role as a regulating mechanism for handling internal and external stimuli is extensively developed from its undifferentiated formation in the neonate through development in adult personality structure.

In addition to lectures, motion-picture material is utilized and individual discussion groups are available. One hour each week; F, W, and Sp.

Required Courses — Second Year

325. **Introduction to Psychopathology.** The processes of symptom formation and the techniques utilized in the case formulation of psychopathology. This course focuses on the study of the processes involved in psychiatric symptom formation by showing with case histories the development of various psychiatric disturbances. Working directly with case material, the processes underlying the formation of different psychiatric disturbances are demonstrated, and the student is made familiar with the processes used to understand case history data by proper application of the necessary explanatory concepts. The traditional psychiatric syndromes are not presented as such but rather various examples of psychopathology, including neurotic disturbances, phobias, conversions, anxiety attacks, perversions, obsessions, compulsions, as well as psychotic symptomatology are presented in terms of the psychic processes involved in their formation.

This course acts as a bridge between the first-year course on basic concepts and the subsequent second-year course on interviewing techniques and procedure. It utilizes the concepts from the first year and shows the technique and application to interview data and their use for understanding interview material in terms of genetic, economic, psychodynamic formulations. It develops further the concepts of stress, trauma, psychic economic imbalance, regression, fixation, conflict, anxiety, defense, unconscious fantasy, return of the repressed, and their use in description and understanding of symptom formation. By using application to case material it prepares the student for using clinical material of the subsequent interview course and this third year clinical working with patients.

In addition to the lectures, individual discussion groups are available. One hour each week; F.

326. **Introduction to Interviewing.** This course attempts to demonstrate and help teach the importance of observational skills that clinicians must know and perfect during their activities as interviewers in the course of the diagnosis and treatment of patients. Further, it is an attempt to demonstrate model doctor-patient relationships useful for optimum diagnosis and therapy. The course is organized in the following manner: The initial four sessions are large group demonstrations of clinicians from different specialties performing interviews, using audio-visual aids (television, film clips). Preceding the live and filmed demonstrations of interviewing,

there is a lecture on the principles of interviewing. Following the large-scale demonstrations, the entire class is divided into eight to ten smaller groups for the remainder of the quarter where again demonstrations of patients being interviewed are conducted. One hour each week; Sp.

Required Courses — Third Year

350. **Clinical Descriptive Psychiatry.** This is a descriptive and interpretive presentation of the psychiatric syndromes which aims to give the student some recognition of the meaning and purpose of symptoms as attempts at adaptation made under difficult stresses. The hope is that the student, utilizing this recognition and understanding, will cultivate some awareness of and empathy for psychiatric disorders as medical and social problems deserving of his attention. One hour each week; F.

351. **Clinical Clerkship.** The chief instruction in the first year of the clinical years is given in this course. Principles of interviewing and doctor-patient interaction are taught, under supervision, by demonstration interviews and direct work with patients. Conferences are held demonstrating the group approach, including psychology and social work. Patients are assigned from the Neuropsychiatric Institute, the wards of the Research and Educational Hospitals, Cook County Mental Health Clinic, Presbyterian-St. Luke's Hospital, West Side Veterans Administration Hospital, the Illinois State Psychiatric Institute, and the Institute for Juvenile Research. One-half day a week while on the regular medical clerkship quarter and a similar amount of time while on the pediatric clerkship quarter; F, W, and Sp.

Required Courses — Fourth Year

375. **Clerkship.** The major focus in the clerkship offered to the senior medical student is on the one-to-one contact with a patient presenting primarily symptoms of emotional imbalance. The individual student attends the out-patient clinic at the Neuropsychiatric Institute and at Presbyterian-St. Luke's Hospital two mornings per week for one quarter and is assigned a case to be seen either for diagnostic appraisal for a short period of time or for a more thorough evaluation for ten to eleven weeks. Each interview is followed by a supervisory session with an attending physician during which time emphasis is placed on formulating the patient's conflicts, understanding the current and historical stresses operating in the patient to produce the conflict, and gaining an insight into the principles of psychotherapeutic interventions. The clinical interviews and supervision are followed each day by seminars. On one of the two days of the program seminars are given on the following topics: introduction to psychiatric interviewing; introduction to personality development; introduction to psychological testing; psychosomatic correlation seminar; introduction to psychotherapy.

On the other day each week, the seminar consists of making rounds on medical and surgical wards to interview patients in an attempt to understand their reaction to illness and hospitalization. Here an attempt is made to view the patient in a comprehensive manner and to view the emotional aspects of the illness as an influencing agent on the patient's reaction to the illness. In summary, the senior psychiatry clerkship attempts to focus on the following areas: (1) observation and understanding of people's emotional problems combined with insight into intervention that would be attempted; (2) the introduction to the concept of psychophysiologic disequilibrium as it applies to organic and emotional illness; and (3) understanding the facets of doctor-patient relationships with an introduction to the concept of the doctor as a therapeutic agent. Two half days a week for one quarter; S, F, W, and Sp.

Alternative Quarter Program

399. Clinical Programs in Psychiatry. The elective program in the Department of Psychiatry focuses on helping the student to apply the insights of psychiatry and related behavioral science disciplines to the clinical problems he will meet in his internship and future career. To a large extent the program outlined for each individual student is designed to evaluate and increase his current level of understanding, and to utilize the student's own motivation and direction. The staff tries to encourage individual creative study and thinking, critical analysis of classical and current literature, and careful study of patients with special emphasis on aspects of the doctor-patient relationship applicable to any branch of medicine.

a. Students with special interest in psychiatry are encouraged to broaden their knowledge and to prepare themselves for future growth within the field.

b. Students with interest in general medicine, internal medicine, pediatrics, surgery, or other fields are encouraged to use this opportunity to supplement their knowledge of psychiatry, and particularly to integrate their studies with those of their primary interest.

c. Students are permitted to continue already established research in the department or to participate in organized ongoing projects.

d. Regular activities include seminars in psychiatric literature, psychotherapy, child psychiatry, psychology, work with acutely ill patients, and outpatient work with patients and their families. A supervised individual project is expected.

Limited to ten seniors. All day or mornings only, Monday through Friday; F, W, and Sp.

Elective Courses — Not for Credit

360. Survey of Developmental Research. Survey and analysis of research

strategies employed in recent studies of developmental factors affecting normal and abnormal personality development. One hour each week; Sp.

361. **Life Changes in Lawndale: Psychological and Social Aspects of the Development of the Urban Disadvantaged Child.** This course gives an overview of the life experience of the disadvantaged urban child as it relates to the development of his academic achievement skills and his probable future life chances. It also provides a background for greater understanding of many of the day-to-day phenomena observed in the pediatric and medical clinics and place these phenomena in a broader context of the total life experience of these people. All classes; Sp.

Required Courses — Other Colleges and Schools

Occupational Therapy 324. Psychiatry for Occupational Therapy Students. School of Associated Medical Sciences.

RADIOLOGY

Professors: Harvey (Head of Department), Buenger, Clark, Liebner, Squire, Wachowski.

Research Professor: Moos (Radiation Physicist).

Associate Professors: Beilin (Emeritus), Henrickson, Kirsh, Leader, Lochman, Melamed, Pantone, Patterson, Petersen (Emeritus), Valvassori.

Assistant Professors: Alcorn, Baker, Berlin, Bogdonoff, Borchart, Braun, Dziadzka, Fordham, Greenfield, Haas, Halko, Hartman, Heydemann, Hibbs, Hill, Hochhauser, Hussey, Matthew, Moncada, Olson, Ovadia, Sassoon, Savory, Schwarz, Scott, Walgren, Whitney.

Instructors: Chung-Bin, Drugay, Hord, Jinkins, LeVan, Nasatir, Strubbe.

Assistants: Backs, Burrows, Flynn, Millburn, Parkhurst, Rafferty, Skerker, Ying.

The aim of the teaching program is to familiarize the student with X-ray methods of analysis as applied to anatomy, physiology, and pathology. Continual emphasis is placed on the ever-increasing scope of radiology, the indications for, and limitations of, various diagnostic and therapeutic procedures, the physical, biological, and genetic principles underlying radiation hazards, and means of preventing or minimizing dangers.

The teaching program is continuous throughout the four years of medical school. First-year students are provided with films for anatomical study and are encouraged to participate in patient fluoroscopic examinations to correlate motion, function, and relationships with dissection material. During the second year, there is close correlation between X-ray and autopsy findings. In the clinical years, there is constant integration of X-ray with the various branches of medicine through case study, conferences, and rounds. Radiology is represented at most of the formal conferences throughout the four years.

Required Courses — Second Year

349. Radiology. This is a survey course covering diagnostic and therapeutic fields of radiology. Diagnosis is approached through general discussions of underlying physical and mechanical principles of different types of equipment, purpose of different types of examinations, patient preparation, patient tolerance, and limitations of various examinations. Emphasis is placed upon normal ranges, significant variations, and abnormal findings. The therapeutic portion includes actions and uses of radium, roentgen rays, and radioactive isotopes. Biological effects of radiations, public health aspects of atomic medicine and warfare, and selected items of criminal detection and legal identity and responsibility are included. Lectures and demonstrations one hour each week; Sp.

Required Courses — Third Year

374. Clinical Radiology. Logic and technic of X-ray interpretation are taught in small groups. Correlation of patients' symptoms and X-ray findings is made by clinical rounds. Detection and management of cancer is taught by demonstration and discussion in tumor clinics, wards, operating rooms, and the radiation therapy section. Given in conjunction with clinical clerkships. F, W, and Sp.

Alternative Quarter Program

399. Clerkship in Radiology. A two-week full-time assignment in the radiology department at either the Research and Educational Hospitals or Presbyterian-St. Luke's Hospital. Clerks are part of the radiological team in the daily management of diagnostic, therapeutic, and isotopic patient load, attend all conferences participated in by the radiologists, study a selected group of teaching file cases, and are given helpful reading assignments in fundamental radiologic problems. S, F, W, and Sp.

SURGERY

Professors: Anderson, H. L. Baker (Emeritus), Barber, Cole (Emeritus), Curtin, De Takats (Emeritus), Dye, Everson, Fell, Gilchrist, Greeley, Grove, Guy, Javid, Jensik, Julian, Langston, Laskin, G. O. McDonald, McMillan, Miller (Emeritus), Nadeau (Emeritus), Olwin, Puestow, Requarth, Reynolds, Schneewind, Slaughter, Southwick, Straus (Emeritus), Thorek.

Associate Professors: Roberts (Acting Head of Department), R. J. Baker, Branch, Cannon, Davis, De Peyster, Diffenbaugh, Diggs (Emeritus), Economou, Garside, Gillesby, Harridge, Hazlett (Emeritus), Hunter, Hutchings, Kilbourne, Koppel, Koucky (Emeritus), Lawton (Emeritus), Lekan, Lyon (Emeritus), O. G. McDonald, Majarakis, Monroe,

Mrazek, Neville, Oden (Emeritus), Olander, Orndorff, Parker (Emeritus), Peterson, L. W. Schultz (Emeritus), Seed (Emeritus), Stokes, Strohl, Stuebner, Theis, Weinberg.

Assistant Professors: B. L. Abrams, Almquist (Emeritus), Atterbury, Barker, Black, Broccolo, C. D. Brown (Emeritus), Canham, Correll, Cross, De Tarnowsky, Eastman, Faber, Frisch, Gallios, Gans, Gibbel, Glassford, Goldfarb, Green, Guynn, Haley, Hamilton, Hanselman, Hardt, Hess, Hochman, Hinkamp, Ireneus, Jamieson, Jensen, Johnson, Kaiser, Kirsteins, Knock, Kukral, Lenit, R. O. Lewis, Looby, Lopez-Belio, McNabb, McNally, Mansour, Mason, Matson, H. I. Meyer (Emeritus), Milloy, Najafi, Overstreet, Paul, Pepper, Peskin, Picken, Pribble, Raffensperger, Renaud, Roesel, R. C. Schultz, Shambaugh, Sellett, Shorey, Sohn, Strehl, Swerdlow, Tarizzo, Tenczar, Wasick, Webb, Werelius, White, Witanowski, Witkowski, Youngberg.

Lecturers: Jenkins, Myers.

Research Associates: Neyman, Zeineh.

Instructors: Abrahams, Ahmadi, Ardekani, Bass, Berger, Caldwell, Callaghan, Choudhry, Corley, Doolas, Ediger, Ellenby, Escamilla, Fiscus, E. G. Goldin, M. D. Goldin, Graham, Jonasson, Kennedy, D. R. Lewis, Maganini, Mehl, Naffah, Nennhaus, Proffitt, Reysio-Cruz, Roseman, Sandrolini, Schmidtke, Sheverini, Somerndike, Waltz, Will, Yang.

Assistants: Bacon, Bhatti, T. A. Brown, Caldarelli, Cusick, Elliott, Fiechtner, Glass, Gunn, Hassinger, Helfrich, Hengesh, Johnstone, Kendall, Kessler, Lazar, Leff, Lindley, Marogil, Miley, Pemberton, Pomerantz, Remark, Sampson, Seetapun, Sellards, Sethi, Shields, Steinwald, Whitehead, Wilsey, Zacheis.

Research Assistants: Llamas, McIver.

The major functions in undergraduate teaching of surgery are to teach surgical diagnosis, preoperative and postoperative care, and the principles of operative technic. Several additional years of intern and residency experience are required to obtain sufficient training in operative technic and judgment to qualify as a surgeon.

In the sophomore year the student receives an introduction to surgery through conferences and lectures given partly as interdepartmental conferences by members of the surgical department and partly as an independent lecture series.

In the junior year the student begins clerkship work on the ward where he takes the patient's history, performs examinations, and scrubs with the surgical team in the operating room when his patients come to surgery. In the preoperative preparation of the patient and particularly in the postoperative care, the student comes in direct contact with the clinical application of physiology, bio-

chemistry, and the other basic sciences, because in this phase of surgery the correlation with other specialties is very close. Numerous clinics are held during this clerkship period when problems in various surgical specialties as well as in general surgery are discussed.

In the senior year the student continues with a ward clerkship, but in addition is assigned work in the various surgical dispensaries. Likewise, various surgical clinics are held where the patient is used as a basis for presentation and discussion of surgical problems.

Required Courses — Second Year

326. Introduction to Surgery. This is an introductory course in surgery designed to present basic information needed by the student to assist him in correlation of the clinical features of surgical patients. Two hours each week; Sp.

Required Courses — Third Year

350. Surgical Clinic. Research and Educational Hospitals. One hour each week; F and W.

351. Surgical Pathology. Research and Educational Hospitals. In conjunction with Surgery 353 and in collaboration with the Department of Pathology. A systemic gross and microscopic study of common lesions removed by surgical procedures. One two-hour period a week; F, W, and Sp.

353. Surgical Clerkship. Students are assigned patients and are responsible for the history, physical examination, and the initial laboratory work. General (also emergency), thoracic, oral, pediatric, plastic, and vascular surgery are included. Each student spends six hours per quarter respectively in the Tumor Clinic and Proctology Clinic. Research and Educational Hospitals, Presbyterian-St. Luke's Hospital, Cook County Hospital, and West Side Veterans Administration Hospital. Thirty-eight hours each week; F, W, and Sp.

Required Courses — Fourth Year

375. Surgical Outpatient Clerkship. General surgery clinic, tumor clinic, cardiovascular surgery, and genitourinary surgery. Students participate in history taking, diagnosis, minor surgery, and surgical dressings. Research and Educational Hospitals and Presbyterian-St. Luke's Hospital. Three three-hour clinic periods plus one three-hour period in clinical anatomy each week; S, F, W, and Sp.

376. Surgical Inpatient Clerkship. Research and Educational Hospitals. Students are assigned to the orthopaedic wards for four weeks and to the anesthesia service for two weeks. During this six-week period each student is assigned night call in the Emergency Room and spends one half day a week in the Tumor Clinic.

Alternative Quarter Program

399. **General Surgery and Surgical Specialties.** These programs are offered in order to permit small groups of senior students during the alternative quarter to study in depth certain surgical specialties or to enter into research within the Department of Surgery. These courses are offered as full-time clerkships at either Research and Educational Hospitals or Presbyterian-St. Luke's Hospital or other hospitals associated with the University teaching program. The clerkships are not a repetition of the regular senior clerkship. Rather, the student spends all his time in the area of the particular specialty under the guidance of one faculty member. A student wishing to engage in research may carry out a problem of his own choice or participate in a faculty member's research program. The following clerkships and research experiences are offered: (1) research in surgery at the Research and Educational Hospitals (tumor, general surgery, tissue culture, cardiovascular surgery, and anesthesia) and at Presbyterian-St. Luke's Hospital (tumor, blood coagulation, cardiovascular surgery, and tisssue transplantation); (2) specialty clerkships (tumor clinic, urology, emergency service, anesthesia, recovery room). Total enrollment limited to twenty-six students with no more than two or three students in any one area of research or specialty program. S, F, W, and Sp.

Elective Courses — Not for Credit

360. **Evaluating Scientific Information.** This course is designed to help students in their appreciation and analysis of scientific literature. Likewise, it should assist the students in acquiring skill in reading. In the discussions, it is shown how to acquire knowledge, how we learn to change our minds, how we learn to distinguish between truth and illusion, and how to define faith, fallacy, and fact. Effort is made to aid the students in recognizing the value of scientific arguments indicating what are legitimate questions, what are legitimate answers, how we add new knowledge, and identify the author's purpose. Sp.

491. **Surgical Seminar.** The content of the course may vary from quarter to quarter depending upon availability of speakers and their research accomplishments. Slightly more than one-half of the time is devoted to presentations by scientists outside of the department. The rest of the time is devoted to discussion of our own surgical projects, criticizing methods and other features of the protocol. Most, but not all, of the outside presentations are of the research type. Two hours each week; F, W, Sp, and S.

Required Courses — Other Colleges and Schools

Occupational Therapy 324. Surgical Conditions. School of Associated Medical Sciences.

UROLOGY

Professors: J. H. McDonald (Head of Division), Kiefer.

Associate Professors: Graf, Merricks, Schacht (Emeritus).

Assistant Professors: Baumrucker, Berry, Cottrell, Diaz, Drabanski, Flanagan, Haeger, McKiel, W. C. Meyer, Papierniak, Ritch (Emeritus), Valenta, Wiggishoff.

Instructors: Calams, Callahan, Cronin, Dahms, Deniz, Kozak, McClellan, Nadjmi, Simpson, Watkins.

Assistants: Chioomsai, Flinn, Lowry, Zalar.

Required Courses — Third Year

353. Clerkship. Given in conjunction with Surgery 353. Students are assigned patients and are responsible for the history, physical examination, and initial laboratory work. They also attend ward rounds. Research and Educational Hospitals, Presbyterian-St. Luke's Hospital, Cook County Hospital, and West Side Veterans Administration Hospital. F, W, and Sp.

361. Clinical Urologic Seminar. The more important urologic conditions are covered in detail by discussion and demonstration of patients. One hour each week; F, W, and Sp.

Required Courses — Fourth Year

375. Urology Dispensary. History-taking, examinations, and treatment. Research and Educational Hospitals and Presbyterian-St. Luke's Hospital. Given in conjunction with Surgery 375. S, F, W, and Sp.

ANESTHESIOLOGY

Professors: Sadove (Head of Division), Balagot, Morch, Searles.

Associate Professors: Levin, Lyons (Emerita), Schmidt, Shima.

Assistant Professors: Gleave, Heller, Keeling, Machado, Melby, Natof, Rosenberg, Sabin, Schwartz, Sen, Shulman, Toyooka, Traina, Wallace, Yon.

Lecturer: Druz.

Instructors: Ashcraft, Berlin, Dangremond, Goldberg, Heckel, Katz, Kokorudz, Paprikoff, Rose, Santelices, Silins, Solway, Thomason, Valenti, Zbick.

Assistants: H. A. Abrams, Andal, De Leon, De Young, Fried, Girado, Hodges, Lopez-Marino, Murguia, Ngo, Saavedra, Sanchez, Schechter, Shwachman, Soriano, Talens, Talon, Wongse-Sanit, Yu.

Required Courses — Fourth Year

376. Clerkship. Given as part of Surgery 376. Research and Educational Hospitals. The student is assigned to anesthesia full time for two weeks. Under supervision he gives anesthesia to patients in the operating room. S, F, W, and Sp.

378. Principles of Anesthesia. One hour each week. S and W.

OFFICE OF RESEARCH IN MEDICAL EDUCATION

Director: Miller.

Associate Director and Chief, Curriculum Studies Section: Fisher.

Assistant Director and Chief, Evaluation Studies Section: McGuire.

Senior Associate and Acting Chief, Training Section: Anderson.

Senior Associates: Levine, Schorow, Webb.

Associate: Huncke.

The College of Medicine, in 1959, organized an Office of Research in Medical Education to lend direction to a carefully designed and all-inclusive study of its educational program. This intramural study activity was expanded in 1964 to include a Center for the Study of Medical Education in which educational research and development programs that go beyond this College of Medicine can be mounted. Special attention is directed to study of curricular organization, instructional systems and educational evaluation. Training opportunities are also provided: a research fellowship or Master of Education (in medicine) degree program for those seeking special preparation for a career in medical education and intensive courses in various phases of educational science for medical faculty members who seek an introduction to this field.

SCHOOL OF ASSOCIATED MEDICAL SCIENCES

Director of School: Richards.

The School of Associated Medical Sciences established in the College of Medicine offers course work leading to a baccalaureate in each of three curricula — Medical Record Administration, Medical Technology, and Occupational Therapy. The first three years of the curricula are offered at the University's undergraduate Urbana and Chicago campuses in the College of Liberal Arts and Sciences. Transfers from other colleges and universities are accepted if they meet the entrance requirements. The professional courses are given in one full year (Curriculum in Occupational Therapy, sixteen months) at the University of Illinois at the Medical Center in Chicago after satisfactory completion of the first three years.

Further information regarding these curricula may be obtained from the Director of the School of Associated Medical Sciences, 901 South Wolcott Avenue, Chicago (mailing address: P.O. Box 6998, Chicago, Illinois 60680).

Medical Record Administration

Assistant Professor: Finnegan (Director of Curriculum).

Instructor: Samuels.

A complete and accurate record on each hospital and clinic patient has become much more than just that. It is an important legal document used in evidence in our courts, a research and educational document used in our medical schools, and an important diagnostic and prognostic record in our analysis of the patient's illness.

Responsibility for the completeness, accuracy, and accessibility of these records lies with the trained medical record librarian. To develop and operate a large, properly functioning medical record department, one full year of professional training is required to provide the student with a knowledge of standardized systems of disease nomenclature and numerical coding, familiarity with the vocabulary of medicine and its techniques, and with organizational and managerial skills.

Medical Technology

Assistant Professors: French (Director of Curriculum), Hammer, Turner.

Instructor: Robson.

The medical technologist provides a large measure of the scientific evidence needed by hospitals for diagnosis, therapy, and research. He is responsible for the precision and accuracy of a broad range of laboratory data which are of crucial importance to the welfare of patients in all hospitals.

Well educated individuals in medical technology are at an advanced professional level, carrying a large part of the responsibility for the difficult techniques of modern medicine. Professional training is given in laboratory practice in clinical chemistry, medical hematology, medical microbiology, and in the various laboratory aspects of blood banking.

Occupational Therapy

Associate Professor: Wade (Director of Curriculum).

Assistant Professors: Hruby, Loomis, Sleeper, Tiernan.

Instructors: Cross, Garms, Gillette, Hadra, Kaufmann, Markin, Mayer, Mier.

Assistant: Holverson.

Occupational therapy is the use of directed activity and special skills as treatment to assist the patient in his physical restoration, social adjustment, and emotional development. The therapist, working under the direction of a physician, contributes to the evaluation of the patient's needs and correlates his treatment procedures with those of other associated medical services. The treatment plans include activities of daily living and prevocational evaluations which are accomplished through the use of creative and manual activities.

Close correlation between didactic instruction and practice in planning and administering treatment is effected through supervised clinical experience obtained in the occupational therapy treatment units of the Research and Educational Hospitals and affiliated institutions.

Medical Art

Professor: Goodwin (Head of Department).

Assistant Professors: Hospodar, Schwarz.

The Department of Medical Art is organized as a department of the University of Illinois at the Medical Center, Chicago, and has working relations with the Colleges of Dentistry, Pharmacy, Medicine, and Nursing.

The department conducts the final twenty months of the five-year course leading to a Bachelor of Science in Medical Art. In addition, it offers service functions related to illustration, photography, and other visual aids.

The first three years of study in the curriculum leading to the degree of Bachelor of Science in Medical Art are undertaken in the College of Fine and Applied Arts, and admission requirements are identical to those of the Department of Art in that college. The fourth and fifth years of study are undertaken in the Department of Medical Art at the Medical Center in Chicago. Transfer students for this curriculum must attend a

minimum of two semesters at the College of Fine and Applied Arts at the Urbana campus. In any one year, the number of applicants approved for admission to the final phase of this curriculum is restricted to four. The final twenty months of the curriculum are on the Medical Center campus. Applicants are selected by a committee on the basis of individual qualifications. Preference is given to scholastic records, letters of recommendation (especially from teachers of laboratory courses in science and art), and such special examination as may be determined by the committee. Each prospective student is required to submit a portfolio in person demonstrating such techniques as pen and ink drawings, water colors, life drawings, etc. Applicants must present evidence that a scholastic average of at least 3.5 has been maintained, with a minimum of ninety semester hours of acceptable credit.

The fourth year of study includes: (1) a course in anatomy taken with medical students, consisting of lectures and laboratory work in embryology, histology, neurology, and gross anatomy, including the dissection of an entire human body; (2) drawing in detail of dissections, bones, and organs of the body prepared in conjunction with anatomy studies; (3) special consideration of accurate observation and interpretation of technique and media of illustration such as wash drawings, crayon, pen and ink, and water colors; these media are to be adapted for television and film presentation; (4) lettering and the preparation of charts and graphs as applied to medical subjects.

The fifth year includes practical applications of illustration in the widest sense to publishing and medical education. Emphasis is placed on the theories of visual instruction and the growing responsibility of the illustrator for the improvement of medical education through all types of graphic media by means of: (1) illustrative projects in anatomy, surgery, and pathology, working from autopsy, operating room, and dissection material; (2) opportunity to participate in the planning, design, and preparation of scientific and lay exhibit material; (3) adaptation of various materials to three dimensional representation of scientific subjects. Techniques for working clays, waxes, plastic, plastic moulages, wood, and metals are among those studied.

The first half-year is a probation period for all students. Hours: 8:00 a.m. to 5:00 p.m., Monday through Friday. Fee for each quarter: residents $90.00; nonresidents $283.00.

Prior to September 1, 1967, further information may be obtained from the Dean of the College of Fine and Applied Arts, Urbana, Illinois 61801. After September 1, 1967, the curriculum in medical art will be a unit of the School of Associated Medical Sciences at the Medical Center Campus, Chicago.

POSTGRADUATE PROGRAMS

Postgraduate programs are under the supervision of the Office of the Dean of the College of Medicine. The faculty consists of the faculty of the College of Medicine. The purpose of these programs is to make available to physicians modern medical knowledge that will result in the best patient care. The policy is to offer general courses as well as special departmental courses. Registration is limited, and applicants must be properly qualified. From time to time announcements are made of courses, giving details of registration, numbers accepted, tuition fees, and similar information.

Otolaryngology

The following courses may be registered for individually or in groups, the time being arranged with the instructor. Additional hours may be scheduled with consent of the head of the department. Applicants must be graduates of a Class A medical school and present acceptable credentials.

340. **Postgraduate Basic Curriculum.** Provides a full-time basic curriculum of instruction for those intending to prepare for special practice. Nine months of the academic year with an addition of a three-month period of clinical work. 9:00 a.m. to 5:00 p.m. Fee: $150.00 tuition and $100.00 laboratory each quarter.

331. **Principles of Otolaryngology.** Lectures, demonstrations, cadaver dissection, surgical anatomy, animal and cadaver surgery, physiology, laboratory and photographic technic, histology and pathology, and seminar. Duration: Three months. Fee: $150.00.

342. **Bronchoesophagology.** Consists of lectures, animal and cadaver work, and actual observation in the bronchoscopic operating room and outpatient clinics. Includes indirect and direct laryngoscopy, bronchoscopy, and esophagoscopy. May also be scheduled separately by accredited specialists. Didactic and laboratory. Duration: Two weeks. Fee: $210.00.

344. **Refresher Courses.** Brief review courses of one or two weeks in length covering the more important subjects of the specialty. Largely didactic, they bring to specialists current advances in management, therapy, and philosophies. Held several times during the academic year as determined by need. Fee: $75.00 a week plus laboratory fee.

In addition to the courses itemized above, intensive one-day seminars on topics of general interest are offered monthly during the academic year. Week-long periods of study in residence in one of several departments are available upon advance subscription.

CHIENGMAI PROJECT

Since August, 1962, the University of Illinois College of Medicine has assisted in the development of the Faculty of Medicine, Chiengmai University, Chiengmai, Thailand. The program is conducted under terms of a contract between the University of Illinois, the government of Thailand, and the Agency for International Development of the State Department of the United States of America.

Chiengmai, the second largest city in Thailand, is located some 500 miles north of the capital city of Bangkok and the Faculty of Medicine, Chiengmai Hospital, was the first medical school to be developed in a provincial area. In 1965, the Chiengmai Faculty of Medicine joined the University of Chiengmai and became the first medical faculty in Thailand to become part of a university.

Faculty members of the University of Illinois College of Medicine serve as consultants and advisers to the Thai faculty and administration in the development of the educational, research, and service programs of the Chiengmai Medical School and Hospital. Financial assistance is offered for the purchase of necessary educational and research equipment.

In association with the program, selected members of the Chiengmai faculty spend one or more years of advanced training in the Research and Educational Hospitals or in the basic science departments of the University of Illinois College of Medicine.

The present contract terminates in 1968 and it is expected that some appropriate relationship between the two faculties will continue beyond that date.

SMITH, KLINE AND FRENCH FOREIGN FELLOWSHIPS FOR MEDICAL STUDENTS

The Foreign Fellowships Program offers junior and senior students enrolled in United States medical schools an opportunity to work and study in medically underdeveloped areas of foreign countries.

The purpose of the program is to provide selected medical students special opportunities to benefit from unusual clinical experience in foreign countries; to study and practice preventive medicine in societies and cultures different from their own; to observe diseases not common in the United States; and to familiarize themselves with exotic medical, cultural, and social problems that are characteristic of a large segment of the world's peoples.

Eligible medical students who wish to apply may obtain additional information and application blanks from the Office of the Dean. Each medical school selects two applications for submission to the national selection committee. No more than one application is approved by that committee for each school.

The program is made possible through a grant from Smith, Kline and French Laboratories of Philadelphia and is administered by the Association of American Medical Colleges.

OTHER OPPORTUNITIES

Senior medical students who gain approval of a department may spend an alternate quarter in an educational program outside of the United States. Students have had hospital clerkship experiences and research experiences in many parts of Europe and the Near East.

CALENDAR

1966 — FALL QUARTER

September 26, Monday.....Quarter begins, all students
November 24, Thursday.....Thanksgiving Day
December 10, Saturday.....Quarter ends, preclinical students
December 17, Saturday.....Quarter ends, clinical students

1967 — WINTER QUARTER

January 3, Tuesday.....Quarter begins, all students
March 18, Saturday.....Quarter ends, all students

1967 — SPRING QUARTER

March 20, Monday.....Quarter begins, clinical students
March 27, Monday.....Quarter begins, preclinical students
May 30, Tuesday.....Memorial Day
June 9, Friday.....Commencement exercises

1967 — SUMMER QUARTER

June 19, Monday.....Quarter begins, clinical students
July 4, Tuesday.....Independence Day
September 2, Saturday.....Quarter ends

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